

1 UNITED STATES DISTRICT COURT
2 WESTERN DISTRICT OF OKLAHOMA

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4
5 RICHARD GLOSSIP, et al.,

6 Plaintiffs,

7 -vs-

Case No. CIV-14-665-F

8 RANDY CHANDLER, et al.,

9 Defendants.

10
11 VIDEOTAPED DEPOSITION OF LAWRENCE H. BLOCK, PhD

12 TAKEN ON BEHALF OF THE DEFENDANTS

13 ON FEBRUARY 12, 2021, BEGINNING AT 9:09 A.M.

14 VIA ZOOM

15
16 APPEARANCES

17 on behalf of the PLAINTIFFS

18 Ms. Pilar Stillwater (Via Zoom)

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22
23 (Appearances continued on next page.)

24 REPORTED BY: Shannon S. Harwood, CSR, RPR, CRR

<p>Page 2</p> <p>(Appearances continued.)</p> <p>Mr. James K. Stronski (Via Zoom) CROWELL & MORING 590 Madison Avenue 20th Floor New York, New York 10022 212-895-4217 jstronski@crowell.com</p> <p>on behalf of the DEFENDANTS</p> <p>Mr. Bryan Cleveland (Via Zoom) OKLAHOMA ATTORNEY GENERAL'S OFFICE 313 N.E. 21st Street Oklahoma City, OK 73105 405-521-3921 bryan.cleveland@oag.ok.gov</p> <p>ALSO PRESENT: Mr. Sean Shell (Via Zoom)</p>	<p>Page 4</p> <p>STIPULATIONS</p> <p>It is hereby stipulated and agreed by and between the parties hereto, through their respective attorneys, that the deposition of LAWRENCE H. BLOCK, PhD may be taken pursuant to agreement and notice and in accordance with the Federal Rules of Civil Procedure on February 12, 2021, via Zoom, before Shannon S. Harwood, CSR, RPR, CRR.</p>
<p>Page 3</p> <p>I N D E X</p> <p>PAGE</p> <p>Direct Examination by Mr. Cleveland 6</p> <p>EXHIBITS</p> <p>Exhibit Description</p> <p>1. Dr. Stevens' 1-11-21 report 20</p> <p>2. Kang Study 33</p>	<p>Page 5</p> <p>THE VIDEOGRAPHER: This is the videotaped deposition of Dr. Lawrence Block taken on behalf of the defendants in the matter of Richard Glossip, et al versus Randy Chandler, et al, filed in the United States District Court for the Western District of Oklahoma, Case Number CIV-14-665-F. This deposition is being held via web conference on Friday, February 12th, 2021. We're on the record at 9:09 a.m.</p> <p>Will counsel please their appearances for the record?</p> <p>MR. STRONSKI: Jim Stronski from Crowell & Moring for plaintiffs and the witness, and with me Pilar Stillwater from Crowell & Moring for the plaintiffs and the witness.</p> <p>MR. CLEVELAND: And Bryan Cleveland from the Oklahoma Attorney General's Office for defendants, and I'll be taking the deposition.</p> <p>THE VIDEOGRAPHER: The court reporter will now please swear in the witness.</p> <p>(Witness sworn.)</p> <p>WHEREUPON,</p> <p>LAWRENCE W. BLOCK, PhD,</p> <p>after having been first duly sworn, deposes and says in reply to questions propounded as follows, to-wit;</p> <p>DIRECT EXAMINATION</p>

<p style="text-align: right;">Page 6</p> <p>1 BY MR. CLEVELAND:</p> <p>2 Q. All right. Morning, Doctor.</p> <p>3 A. Good morning.</p> <p>4 Q. I'll be the one taking the deposition today,</p> <p>5 as you just heard, so start out with some basic overview</p> <p>6 type stuff here before we delve into the material. I</p> <p>7 say, have you been deposed before?</p> <p>8 A. I have.</p> <p>9 Q. Okay. So you're probably familiar with some</p> <p>10 of the instructions. Try to give you just some of the</p> <p>11 basic ones here. First, as you probably are aware from</p> <p>12 the boxes here, we have a videographer, but also a court</p> <p>13 reporter, and for the reporter's sake, it's helpful if</p> <p>14 you give answers to questions as yes and no or -- rather</p> <p>15 than moving the head or saying "uh-huh" just because it</p> <p>16 makes a clearer record.</p> <p>17 Do you understand that?</p> <p>18 A. I do.</p> <p>19 Q. All right. And, you know, from time to time,</p> <p>20 obviously your -- I'll have questions, you'll have</p> <p>21 answers, and your counsel may have objections and it's</p> <p>22 important for the record that, you know, you let me</p> <p>23 finish my questions and him finish his objections and</p> <p>24 I'll try to let you finish your answer so that we have a</p> <p>25 clear record.</p>	<p style="text-align: right;">Page 8</p> <p>1 A. Thank you.</p> <p>2 Q. Uh-huh. And -- all right. Now, what do you</p> <p>3 know about the lawsuit that you're testifying in today?</p> <p>4 MR. STRONSKI: Objection to form.</p> <p>5 A. In what respect?</p> <p>6 Q. (By Mr. Cleveland) Do you know what the</p> <p>7 lawsuit is about?</p> <p>8 MR. STRONSKI: Objection to form.</p> <p>9 A. I have a general idea, but I have not reviewed</p> <p>10 other documents.</p> <p>11 Q. (By Mr. Cleveland) Understood. I mean, what</p> <p>12 would you say -- what's the general idea you have?</p> <p>13 MR. STRONSKI: Objection to form.</p> <p>14 A. The issue, at least, that I was asked to opine</p> <p>15 on was the issue of preparing solutions that would be</p> <p>16 used in the execution of an individual by the State.</p> <p>17 Q. (By Mr. Cleveland) Okay. Understood. And</p> <p>18 are you testifying on behalf of the plaintiffs or the</p> <p>19 State today?</p> <p>20 A. The plaintiff.</p> <p>21 Q. All right. And what did you do to prepare for</p> <p>22 today's deposition?</p> <p>23 A. I've reviewed papers. I've searched the</p> <p>24 literature. I've consulted with the attorneys.</p> <p>25 Q. All right. What papers did you review?</p>
<p style="text-align: right;">Page 7</p> <p>1 Do you understand that?</p> <p>2 A. Yes.</p> <p>3 Q. All right. And are you taking any medication</p> <p>4 or other substances today that would interfere with your</p> <p>5 ability to testify truthfully and accurately in the</p> <p>6 case?</p> <p>7 A. No.</p> <p>8 Q. All right. And is there any other reason that</p> <p>9 you'd be unable to answer questions truthfully --</p> <p>10 truthfully and accurately in today's deposition?</p> <p>11 A. Not as far as I know, although I must say that</p> <p>12 I do use an insulin pump.</p> <p>13 Q. Okay.</p> <p>14 A. And I keep track of my apparent blood glucose</p> <p>15 values with a sensor --</p> <p>16 Q. Uh-huh --</p> <p>17 A. -- that I can see and so I can track my blood</p> <p>18 glucose and make certain that I can make adjustments or</p> <p>19 whatever.</p> <p>20 Q. Understood. And I'll try to aim for breaks</p> <p>21 about once an hour, but it's at your discretion. So if</p> <p>22 you want to take more frequent breaks or less frequent</p> <p>23 or whatnot, always just let us know whenever you need to</p> <p>24 take a break and we can do that.</p> <p>25 Do you understand that?</p>	<p style="text-align: right;">Page 9</p> <p>1 A. A variety of papers that I have access to and</p> <p>2 some papers that were referenced in other reports.</p> <p>3 Q. Okay. Did you review any other reports?</p> <p>4 A. Other than those cited by me? I -- I'm not</p> <p>5 certain --</p> <p>6 Q. Exactly.</p> <p>7 A. -- know what you're referring to.</p> <p>8 Q. I mean, you -- you said talked -- you made a</p> <p>9 reference to papers attached to other reports, so I was</p> <p>10 just asking if you referred -- if you had read other</p> <p>11 reports as well.</p> <p>12 A. Well --</p> <p>13 MR. STRONSKI: Object to the form.</p> <p>14 A. -- in my search of the literature, I'm certain</p> <p>15 that I did read other papers.</p> <p>16 Q. (By Mr. Cleveland) Okay. Let's see here.</p> <p>17 And let me pull it up. Did you receive the two exhibits</p> <p>18 that have been emailed from our office?</p> <p>19 A. I did.</p> <p>20 Q. Okay. I'm going to pull up the first</p> <p>21 attachment here, No. 1.</p> <p>22 (Deposition Exhibit No. 1 was marked for</p> <p>23 identification and made part of the record.)</p> <p>24 Q. (By Mr. Cleveland) I'll try and share it as</p> <p>25 well and then if you can pull it up as well.</p>

<p style="text-align: right;">Page 10</p> <p>1 MS. STILLWATER: Counsel --</p> <p>2 MR. CLEVELAND: Yeah.</p> <p>3 MS. STILLWATER: -- I just wanted to clarify</p> <p>4 that Dr. Block does have a paper copy of his report in</p> <p>5 front of him along with a binder of the exhibits and the</p> <p>6 materials cited and confirm that it's okay with you if</p> <p>7 he wants to refer to that binder.</p> <p>8 MR. CLEVELAND: Oh, yeah. No, that's fine if</p> <p>9 he wants to refer to it in paper.</p> <p>10 MS. STILLWATER: Great. Thank you.</p> <p>11 Q. (By Mr. Cleveland) Pull this up. There we</p> <p>12 go. Taking a second to pull up here. All right. I've</p> <p>13 got the cover sheet of this PDF here.</p> <p>14 Is this the report that you provided in this</p> <p>15 case?</p> <p>16 A. Yes.</p> <p>17 Q. And I'll just scroll it down here too, and</p> <p>18 then these conclusions on page, I guess, 20 of 21 of PDF</p> <p>19 RDF inclusions that you submitted in this case?</p> <p>20 MR. STRONSKI: Objection to form.</p> <p>21 A. Yes.</p> <p>22 Q. (By Mr. Cleveland) And then exhibit -- I'll</p> <p>23 mark this as Exhibit 1, this PDF. It has listed in here</p> <p>24 you have an Exhibit A that was your CV; is that correct?</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 12</p> <p>1 THE WITNESS: Thank you, yeah.</p> <p>2 MR. STRONSKI: -- it's in your binder. They</p> <p>3 should -- they all should be in your binder.</p> <p>4 Q. (By Mr. Cleveland) And obviously, Doctor, if</p> <p>5 you ever need a minute to find it, obviously just let me</p> <p>6 know and we can pause to make sure you've got your copy</p> <p>7 in front of you.</p> <p>8 A. Thank you.</p> <p>9 Q. All right. I guess the other thing I should</p> <p>10 ask too, do you have any documents in front of you other</p> <p>11 than those that Ms. Stillwater described?</p> <p>12 A. I do not.</p> <p>13 Q. Okay. And then when did you begin preparing</p> <p>14 your report in this case?</p> <p>15 MR. STRONSKI: Objection to form.</p> <p>16 A. I think our discussions began in 2020.</p> <p>17 Q. (By Mr. Cleveland) Okay. And have you</p> <p>18 prepared a report for a lethal injection case before?</p> <p>19 A. Could you repeat that, please?</p> <p>20 Q. Oh, sure. Sorry. I said, have you prepared a</p> <p>21 report for a lethal injection case before this?</p> <p>22 A. I have not.</p> <p>23 Q. Okay. And what are your views on capital</p> <p>24 punishment?</p> <p>25 MR. STRONSKI: Objection to form. Outside the</p>
<p style="text-align: right;">Page 11</p> <p>1 Q. All right. And then Exhibit B, I believe, is</p> <p>2 a series of sources cited. Is that a fair description</p> <p>3 of your Exhibit B?</p> <p>4 A. Well, in the binder that I have, what tab</p> <p>5 would that be under?</p> <p>6 MR. STRONSKI: I -- I think in the binder that</p> <p>7 you have, exhibit -- tab 2 is Exhibit A, and just for</p> <p>8 the record, tab 3 and -- and later is what I believe</p> <p>9 constitutes Exhibit B, which is everything you cite.</p> <p>10 That's my understanding of -- of the binder you have,</p> <p>11 Dr. Block.</p> <p>12 Q. (By Mr. Cleveland) I can also look to make</p> <p>13 sure. It looks like, Dr. Block, the beginning of what I</p> <p>14 have is Exhibit B, and what was produced to me, is a</p> <p>15 study by JA Morley.</p> <p>16 A. Okay.</p> <p>17 MR. STRONSKI: And that would be a tab in your</p> <p>18 binder.</p> <p>19 Q. (By Mr. Cleveland) And see if you have that</p> <p>20 as tab 3?</p> <p>21 A. That's actually -- in the binder I have,</p> <p>22 that's tab 12.</p> <p>23 Q. Okay.</p> <p>24 MR. STRONSKI: So we'll -- we'll try to -- to</p> <p>25 help you find what counsel pulls up, Dr. Block --</p>	<p style="text-align: right;">Page 13</p> <p>1 scope.</p> <p>2 A. Well, first, I must say that I was not asked</p> <p>3 to opine on that and it's, I think, somewhat outside the</p> <p>4 scope of my expertise. It's something I've read about</p> <p>5 and considered, but I've not come to any firm</p> <p>6 conclusions one way or the other at this point.</p> <p>7 Q. (By Mr. Cleveland) Okay. I'm going to pull</p> <p>8 up your CV and question about that so if you can</p> <p>9 navigate to that in your binder there.</p> <p>10 A. Yes.</p> <p>11 Q. And it's -- for noting on the PDF, for the</p> <p>12 record too, it's Exhibit A of Exhibit 1, starting at</p> <p>13 page 22 of Exhibit 1. I'm going to look at the third</p> <p>14 page of the exhibit here, which starts with personal</p> <p>15 data and professional experience.</p> <p>16 A. Okay.</p> <p>17 Q. All right. I see here it says that you have a</p> <p>18 Bachelor's in Pharmacy from University of Maryland in</p> <p>19 1962?</p> <p>20 A. Yes.</p> <p>21 Q. All right. In fact, I guess, looks like all</p> <p>22 three of the degrees are from the University of</p> <p>23 Maryland; is that correct?</p> <p>24 A. They are.</p> <p>25 Q. All right. And it looks like your highest</p>

<p>Page 14</p> <p>1 degree was a PhD in pharmacy; is that correct?</p> <p>2 A. Yes.</p> <p>3 Q. What kind of course work did you complete as</p> <p>4 part of that program?</p> <p>5 A. Well --</p> <p>6 MR. STRONSKI: Objection to form.</p> <p>7 A. -- the graduate course work included work in</p> <p>8 areas such as advanced organic chemistry, analytical</p> <p>9 chemistry, pharmaceuticals, industrial pharmacy, a wide</p> <p>10 range, actually, of topics.</p> <p>11 Q. (By Mr. Cleveland) Uh-huh.</p> <p>12 A. I -- I think, in fact, the first graduate</p> <p>13 course I took was in biophysics.</p> <p>14 Q. Okay.</p> <p>15 A. So just a wide range.</p> <p>16 Q. Yeah.</p> <p>17 A. Of course --</p> <p>18 Q. Go ahead.</p> <p>19 MR. STRONSKI: I think he's done.</p> <p>20 Q. (By Mr. Cleveland) Oh, okay. I think there's</p> <p>21 a slight delay on my end here.</p> <p>22 I guess, was the master's part of the graduate</p> <p>23 program for the PhD then?</p> <p>24 A. Yes.</p> <p>25 Q. Okay. And then your dissertation, I saw you</p>	<p>Page 16</p> <p>1 some other area of industrial pharmacy.</p> <p>2 Q. Uh-huh.</p> <p>3 A. That was my initial expectation. At some</p> <p>4 point, I changed my thought a bit and my objectives and</p> <p>5 began to more seriously consider academic -- an academic</p> <p>6 career.</p> <p>7 Q. Okay. In fact, I believe on the next page of</p> <p>8 your CV, but if I'm recalling correctly, wasn't your</p> <p>9 first faculty appointment in 1968?</p> <p>10 A. It was.</p> <p>11 Q. Okay. And so the year before you finished</p> <p>12 your PhD?</p> <p>13 A. Right. And the expectation was that I would</p> <p>14 complete my PhD degree requirements within that first</p> <p>15 academic year of my appointment, which I did.</p> <p>16 Q. Understood. In fact, I believe that one was</p> <p>17 at, forgive me if I'm mispronouncing this right -- never</p> <p>18 mind. Strike that.</p> <p>19 So your 1968 position was at the University of</p> <p>20 Pittsburgh?</p> <p>21 A. Yes.</p> <p>22 Q. And then beginning in 1970, this is where I'm</p> <p>23 not sure I'm pronouncing it right, you were at Duquesne,</p> <p>24 if I'm saying that right?</p> <p>25 A. Correct.</p>
<p>Page 15</p> <p>1 have the topic there. Could you describe to me what</p> <p>2 that was about? I'm not sure if I understand all the</p> <p>3 terms in there.</p> <p>4 A. The PhD --</p> <p>5 Q. Yes.</p> <p>6 A. -- dissertation?</p> <p>7 Q. Yes.</p> <p>8 A. Yes, factors affecting the use of structured</p> <p>9 media as vehicles for topical application. Basically my</p> <p>10 interest was in semisolids, ointments, gels, creams,</p> <p>11 that sort of vehicle as a means of applying drug to the</p> <p>12 skin's surface and achieving a local or regional or even</p> <p>13 possibly a systemic effect. And what I wanted to</p> <p>14 explore was the issues that might impact the formulation</p> <p>15 of those kinds of delivery systems for drug application</p> <p>16 topically.</p> <p>17 Q. Okay. Understood. What was your intended</p> <p>18 career when you were pursuing graduate studies in</p> <p>19 pharmacy?</p> <p>20 MR. STRONSKI: Objection to form.</p> <p>21 A. My initial expectation was that I would</p> <p>22 ultimately get a position in the pharmaceutical</p> <p>23 industry.</p> <p>24 Q. (By Mr. Cleveland) Uh-huh.</p> <p>25 A. In the formulation department or in area --</p>	<p>Page 17</p> <p>1 Q. And is that how you pronounce that, Duquesne?</p> <p>2 A. That is.</p> <p>3 Q. All right. Only seen it in writing before,</p> <p>4 so...</p> <p>5 A. Well, some people might pronounce it Duquesne,</p> <p>6 but it's Duquesne.</p> <p>7 Q. Okay. Make sure I have that one right. All</p> <p>8 right. And then looks like you've been a full professor</p> <p>9 of pharmaceuticals since 1975 at Duquesne?</p> <p>10 A. Yes.</p> <p>11 Q. And did you obtain tenure in 1975 too then?</p> <p>12 A. I was tenured before that.</p> <p>13 Q. Okay. Was that -- did you obtain tenure with</p> <p>14 the associate professor position or was it entirely</p> <p>15 separate?</p> <p>16 A. Correct.</p> <p>17 Q. Okay. With associate. And this is, you know,</p> <p>18 going across both of this page and the prior one with</p> <p>19 professional experience, so I noted too you had</p> <p>20 extensive involvement with the United States</p> <p>21 Pharmacopeia?</p> <p>22 A. Yes.</p> <p>23 Q. All right. And, again, I guess, am I</p> <p>24 pronouncing that one right, pharmacopeia?</p> <p>25 A. Yes.</p>

<p>Page 18</p> <p>1 Q. All right. And what do you do on expert 2 panels with the United States Pharmacopeia? 3 A. Well, expert panels -- 4 MR. STRONSKI: Objection to form. 5 A. Expert panels are one area that is afforded 6 volunteers and typically expert panels include 7 individuals who are not regular volunteers among the 8 experts that USP makes arrangements with. 9 Expert committees are another story, in that 10 these were individuals who were selected for service 11 through a whole protocol that USP has established. It's 12 a little more formal and much more involved in the 13 adoption of monographs, of standards, and the like. 14 Panels are -- or individuals on panels are empaneled to 15 provide advice and recommendations. 16 Q. (By Mr. Cleveland) Okay. I saw a reference 17 to subcommittees on your CV, I believe, at the -- your 18 page 25 of the PDF. I'll pull it here too so I've got 19 it on screen. 20 I say, are these subcommittees from 2015 to 21 2020 the committees you were just describing? 22 A. Well, check and find that -- well, I can look 23 at the screen. 24 Q. Correct. 25 A. Oh, yes, at the top of the page.</p>	<p>Page 20</p> <p>1 panels and the like that have dealt with reference 2 standards. 3 Q. (By Mr. Cleveland) All right. And have you, 4 you know, been part of drafting or advising reference 5 standards as part of your role with US Pharmacopeia? 6 A. Yes. 7 Q. This -- oh, this one is actually -- one more 8 thing with your academic experience. I believe I saw 9 you're chair of your department from 1985 to 1999? 10 A. Correct. 11 Q. Why were you not chair after 1999? 12 A. Because I lost the election. 13 Q. Oh. No, you're fine. I believe too, if I'm 14 reading this correctly, after 2012, you're now a 15 professor emeritus; is that correct? 16 A. Correct. 17 Q. What does that title mean at Duquesne? 18 A. It -- it means that I retain some access to 19 some of the university resources, for example, the 20 university library, and it also is just a designation of 21 an honored status afforded by my colleagues to me. 22 Q. Do you still teach course work as a professor 23 emeritus? 24 A. I do not. 25 Q. Okay. Was -- would 2012 be the last year you</p>
<p>Page 19</p> <p>1 Q. Yeah. 2 A. Those are groups of USP volunteers with 3 expertise in particular areas and their deliberations, 4 again, are advisory, but the subcommittees are formed by 5 volunteers who are part of larger committees, expert 6 committees with USP. 7 Q. Okay. And I know some of these say 2020, but 8 I think that just may be from the date of the CV. Are 9 you still a member the United States Pharmacopeia 10 subcommittees? 11 A. A number of them, yes. 12 Q. Let's see here. I say, I know I think you 13 mentioned a monograph in a committee. Have you been a 14 member of committee working on monographs like US 15 Pharmacopeia? 16 A. I have. 17 Q. And then as part of that committee, have you 18 been involved in drafting or revising monographs? 19 A. I have. 20 Q. All right. And I guess also with the 21 reference standards, have you been a member of a 22 committee that was responsible for reference standards 23 with US Pharmacopeia? 24 MR. STRONSKI: Objection to form. 25 A. Yes, I've been involved with subcommittees</p>	<p>Page 21</p> <p>1 taught courses at Duquesne? 2 A. Correct. 3 Q. Scrolling down here further in here. This 4 one, it's just a term I didn't understand. It's going 5 down, it's page 40 of Exhibit 1. I believe it has the 6 number 17 from your CV pages. I can put it up here too. 7 You can see -- I saw a reference about the center of the 8 page for something called poster presentations and I 9 wasn't sure what that term meant. 10 So my question was, what did you mean by the 11 term poster presentations in your CV? 12 A. Well, this is an approach to presentation of 13 information at associations, organizational meetings and 14 the like at conventions and the poster format is one 15 that allows you to provide an illustration, text, graphs 16 and the like that would be on display for attendees at 17 the convention or meeting -- 18 Q. Uh-huh. 19 A. -- to review, to -- and typically there's a 20 time allowed for the presenter of the poster to interact 21 with attendees. Questions can be asked and so on. I 22 found this to be a very advantageous approach in 23 contrast to a podium presentation, an lecture, if you 24 will, in that you had this opportunity for direct 25 interaction with people. You could not do that in a</p>

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1 presentation -- a podium presentation, so it's one that
 2 I made a substantial use of over the years.
 3 **Q. Understood. And what does the acronym AAPS**
 4 **stand for under poster --**
 5 A. It's the American Association of
 6 Pharmaceutical Scientists.
 7 **Q. All right. This one may require scrolling or**
 8 **-- so if you have your copy in front of you, but wanted**
 9 **to know if any of the presentations in your CV involved**
 10 **compounding drugs? And if you want to take a minute to**
 11 **review, I know you had several listed in your CV.**
 12 A. Well, without taking some time to go through
 13 it, I would say there were quite a number of
 14 presentations that involved formulations that we
 15 prepared in our laboratories.
 16 **Q. Okay.**
 17 A. Comprised compounding.
 18 **Q. Yeah. In fact, I should have clarified this**
 19 **too. How do you define compounding?**
 20 A. Well, it may not be the most rigorous
 21 definition --
 22 **Q. Uh-huh.**
 23 A. -- but certainly the understanding is that
 24 compounding involves the combination of two or more
 25 ingredients --

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1 **Q. Uh-huh.**
 2 A. -- to prepare a finished formulation.
 3 **Q. Okay. And is synthesizing a pharmaceutical a**
 4 **type of compounding?**
 5 MR. STRONSKI: Objection to form.
 6 A. Could you repeat that, please?
 7 **Q. (By Mr. Cleveland) Sure. And I guess what**
 8 **I'm just trying to make sure I have the term right, but**
 9 **if you -- I'll step back one question here.**
 10 **I believe you mentioned in your report that**
 11 **you had reviewed Dr. Sherman's expert report?**
 12 A. Yes.
 13 **Q. And is it fair to say that his report was**
 14 **about synthesizing pharmaceuticals?**
 15 A. I believe so.
 16 MR. STRONSKI: Objection to form.
 17 **Q. (By Mr. Cleveland) Okay. And is that type of**
 18 **synthesis he describes a form of compounding?**
 19 A. His report describes the synthesis of what
 20 ultimately would be an active pharmaceutical ingredient.
 21 **Q. I mean, this is just purely, like,**
 22 **definitional, one thing I just didn't understand is like**
 23 **--**
 24 A. Right.
 25 **Q. -- is there a difference between synthesis and**

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1 **compounding or --**
 2 MR. STRONSKI: Objection. I'm sorry, go
 3 ahead. Sorry. Go ahead.
 4 **Q. (By Mr. Cleveland) No, I say, is there a**
 5 **difference between synthesis and compounding?**
 6 A. Yes --
 7 MR. STRONSKI: Objection to form.
 8 **Q. (By Mr. Cleveland) No, go ahead. I should**
 9 **say, what is that difference?**
 10 A. Synthesis is the preparation of a new
 11 molecule.
 12 **Q. Okay.**
 13 A. From other molecules.
 14 **Q. Okay.**
 15 A. Or components. Compounding involves one's
 16 taking several components and combining them in some
 17 fashion to form a new preparation. It's not a synthetic
 18 process, that is, there's no chemical reaction
 19 necessarily.
 20 **Q. Okay. And to clarify these terms, because I**
 21 **guess then, you know, I had -- the other question I have**
 22 **on your presentations are, do any of your presentations**
 23 **cover synthesizing pharmaceuticals?**
 24 A. I'd have to look through them more closely.
 25 **Q. Okay.**

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1 A. But by and large, we did not generally
 2 synthesize components that were used in our compounding.
 3 **Q. Okay. And when you say "our," do you mean the**
 4 **university?**
 5 A. Well, I'm referring to work done by my
 6 graduate students and I.
 7 **Q. Okay. Understood. Different thing here.**
 8 **Scrolling down. Just a sec. Wrong page number or**
 9 **something. Hold on here. There we go.**
 10 **All right. This is on page 28 of Exhibit 1,**
 11 **which I believe you have a number 5 on it in your CV,**
 12 **has your licenses at the top.**
 13 MR. STRONSKI: Which page are you on?
 14 MR. CLEVELAND: It's page 28 of Exhibit 1 and
 15 it has a number 5 at the bottom of it in his CV.
 16 A. Right.
 17 **Q. (By Mr. Cleveland) All right. Are you there,**
 18 **Doctor?**
 19 A. I am.
 20 **Q. I say, I believe this says you were at one**
 21 **time licensed in Maryland and Pennsylvania as a**
 22 **pharmacist?**
 23 A. Yes.
 24 **Q. Are the only -- are those the only two states**
 25 **that you've been a registered pharmacist in?**

<p style="text-align: right;">Page 26</p> <p>1 A. Yes.</p> <p>2 Q. And see the last date on here is 2008, so are</p> <p>3 -- is it fair to say that you are no longer a registered</p> <p>4 pharmacist in Pennsylvania?</p> <p>5 A. That's correct.</p> <p>6 Q. And why did your license or registration cease</p> <p>7 in 2008?</p> <p>8 A. Well, I no longer felt it appropriate to -- I</p> <p>9 didn't see myself subsequently entering into employment</p> <p>10 as a pharmacist.</p> <p>11 Q. Okay.</p> <p>12 A. So maintaining my license really was not</p> <p>13 necessary.</p> <p>14 Q. Understood. And does the lack of a license</p> <p>15 limit the work you can do at the university in any way?</p> <p>16 MR. STRONSKI: Objection to form.</p> <p>17 A. In no way.</p> <p>18 Q. (By Mr. Cleveland) Okay. I think that's the</p> <p>19 questions I have on your CV. So at this point, let's</p> <p>20 turn to your report.</p> <p>21 A. Okay.</p> <p>22 Q. All right. I'm going to paragraph 15 of your</p> <p>23 report, which is page 5 of the Exhibit 1 PDF I have</p> <p>24 here. I believe it's number 4 on your report.</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 28</p> <p>1 A. Offhand, no, I'd have to look back and see.</p> <p>2 Q. Understood. I think I may have covered this,</p> <p>3 but just making sure that we've done this before. Did</p> <p>4 you review any of the filings in this case?</p> <p>5 MR. STRONSKI: Objection to form.</p> <p>6 A. Any of the filings?</p> <p>7 Q. (By Mr. Cleveland) I can clarify too. I</p> <p>8 mean, did you review plaintiff's complaint in this case?</p> <p>9 A. I'm really not certain if I did.</p> <p>10 Q. Okay. And then in paragraph 14 of your</p> <p>11 report, you open with a sentence about -- that you've</p> <p>12 been informed by plaintiffs -- plaintiff's counsel that</p> <p>13 defendants have testified, and then it goes on.</p> <p>14 A. Yes, I see that.</p> <p>15 Q. Did you review any documents where defendants</p> <p>16 stated that?</p> <p>17 A. I don't recall.</p> <p>18 Q. Okay.</p> <p>19 THE WITNESS: Excuse me just for one moment.</p> <p>20 MR. CLEVELAND: Oh, yeah.</p> <p>21 THE WITNESS: Slight correction. Thank you.</p> <p>22 Q. (By Mr. Cleveland) Of course. And this one</p> <p>23 is scrolling down next to paragraph -- starting with</p> <p>24 paragraph 26 of your report. It's page 9 of the Exhibit</p> <p>25 1. It has the number 8 at the bottom of it.</p>
<p style="text-align: right;">Page 27</p> <p>1 Q. I see paragraph 15 across a couple of pages,</p> <p>2 you have a list of materials that you considered.</p> <p>3 A. I see that.</p> <p>4 Q. All right. And I believe you have additional</p> <p>5 materials that are cited and attached to this report; is</p> <p>6 that correct?</p> <p>7 A. Yes.</p> <p>8 Q. Other than the materials listed here cited in</p> <p>9 your report or attached as an exhibit, are there any</p> <p>10 other documents that you reviewed for preparing this</p> <p>11 report?</p> <p>12 A. Well, this lists the reports that -- or papers</p> <p>13 or information that I relied upon. There may have been</p> <p>14 other resources that I used, but they weren't named.</p> <p>15 Q. All right. And -- and after having prepared</p> <p>16 this report, but before today's deposition, are there</p> <p>17 other materials not listed or attached that you reviewed</p> <p>18 in preparation for the deposition?</p> <p>19 MR. STRONSKI: Objection to form.</p> <p>20 A. Well, I'm certain that I did review the</p> <p>21 literature beyond these items that are identified, but</p> <p>22 it was purely to clarify some points or to just make</p> <p>23 certain that I was accurate.</p> <p>24 Q. (By Mr. Cleveland) Understood. Do you</p> <p>25 remember any of those other references particularly?</p>	<p style="text-align: right;">Page 29</p> <p>1 A. Okay.</p> <p>2 Q. First question is actually just a terminology</p> <p>3 one. When we're talking about the sodium here, is it</p> <p>4 properly called pentobarbital sodium or sodium</p> <p>5 pentobarbital?</p> <p>6 A. Those terms have been used interchangeably.</p> <p>7 Q. Okay. Either one is correct?</p> <p>8 A. Well, one would know that -- in either case as</p> <p>9 to what the material is.</p> <p>10 Q. All right. And so if I use either term today,</p> <p>11 you'll understand what I'm asking about?</p> <p>12 A. I would hope so.</p> <p>13 Q. Making sure I get the terms right, Doctor.</p> <p>14 A. Yes.</p> <p>15 Q. All right. Now, comparing paragraph 27 and 29</p> <p>16 of your report, I saw two different descriptions. Are</p> <p>17 those describing different forms of pentobarbital?</p> <p>18 A. You're looking at paragraph 29?</p> <p>19 Q. At 27 and 29.</p> <p>20 A. I see. Yeah, 27 describes the solid.</p> <p>21 Q. Okay.</p> <p>22 A. And 29 describes the solid and its solubility</p> <p>23 in water.</p> <p>24 Q. Okay. So I was reading paragraph 29 here. Is</p> <p>25 it -- is the pentobarbital sodium that appears as a</p>

<p>Page 30</p> <p>1 white powder in the other descriptions that you provide</p> <p>2 here?</p> <p>3 MR. STRONSKI: Objection to form.</p> <p>4 A. Both 27 and 29 --</p> <p>5 Q. (By Mr. Cleveland) Uh-huh.</p> <p>6 A. -- refer to pentobarbital. In the case of 27,</p> <p>7 it's pentobarbital per se --</p> <p>8 Q. Okay.</p> <p>9 A. Not the sodium salt.</p> <p>10 Q. Okay.</p> <p>11 A. 29 refers specifically to the sodium salt.</p> <p>12 Q. Okay. And I believe in paragraph 29,</p> <p>13 continuing on to the next page, that --</p> <p>14 A. Yes.</p> <p>15 Q. -- solutions can decompose on standing with</p> <p>16 heat accelerating the decomposition. And --</p> <p>17 A. Yes.</p> <p>18 Q. -- my question was at what heat does the</p> <p>19 decomposition start accelerating?</p> <p>20 A. I can't recall precisely.</p> <p>21 Q. Okay.</p> <p>22 A. But I would -- my expectation is that heat</p> <p>23 refers to temperatures above room temperature.</p> <p>24 Q. Okay. This is a little different, but going</p> <p>25 down to paragraph 31, you mentioned that sodium</p>	<p>Page 32</p> <p>1 A. Yes. Okay. I have it.</p> <p>2 Q. All right. Now, first, just in the abstract</p> <p>3 in the very last sentence, I see where it describes a --</p> <p>4 well, actually, I'll just let you read the abstract for</p> <p>5 a second there. All right. And then at the end, it</p> <p>6 mentions a loss in potency of 6.2 percent after being</p> <p>7 boiled?</p> <p>8 A. Yes.</p> <p>9 Q. When sodium pentobarbital loses 6.2 percent of</p> <p>10 potency, is it still usable in humans under the USP</p> <p>11 reference standards?</p> <p>12 MR. STRONSKI: Objection to form.</p> <p>13 A. I would have to compare --</p> <p>14 Q. (By Mr. Cleveland) Okay.</p> <p>15 A. -- that outcome as reported by Gupta --</p> <p>16 Q. Uh-huh.</p> <p>17 A. -- with what the monograph states.</p> <p>18 Q. I understand. Was the monograph attached as</p> <p>19 one of your exhibits? It may have been.</p> <p>20 A. I am not certain.</p> <p>21 Q. Let's see here. Notes here on page 372 of the</p> <p>22 PDF and Glossip 2258, I saw, I believe, some page</p> <p>23 regarding pentobarbital sodium apparently printed from</p> <p>24 USP. Don't know if that was the monograph that you're</p> <p>25 referencing.</p>
<p>Page 31</p> <p>1 pentobarbital is manufactured and sold for injection in</p> <p>2 the United States. My question was, who is the</p> <p>3 manufacturer that you're mentioning in paragraph 31?</p> <p>4 A. I believe some of the exhibits that were</p> <p>5 provided include the labeling from some of the</p> <p>6 pentobarbital sodium solutions, so I would have to look</p> <p>7 back through the list. I don't recall immediately, but</p> <p>8 there is -- there are exhibits provided.</p> <p>9 Q. Okay. And so the label from that manufacturer</p> <p>10 is in your exhibits?</p> <p>11 A. I'm sorry, I missed that.</p> <p>12 Q. Is the label from that manufacturer in your</p> <p>13 exhibits?</p> <p>14 A. I believe so.</p> <p>15 Q. Okay.</p> <p>16 A. Again, I'd have to check to make certain.</p> <p>17 Q. Yeah. All right. And then in paragraph 32,</p> <p>18 you had a couple of citations. I want to pull up the</p> <p>19 first one. I believe it says Gupta in paragraph 32.</p> <p>20 Let me see if I have that correct here. I have that</p> <p>21 listed here as page 168 of Exhibit 1 and it has the</p> <p>22 Bates Number Glossip 2054.</p> <p>23 MR. STRONSKI: And it's tab 7 in your binder,</p> <p>24 Dr. Block.</p> <p>25 Q. (By Mr. Cleveland) Yeah.</p>	<p>Page 33</p> <p>1 MR. STRONSKI: Maybe look at tab 20,</p> <p>2 Dr. Block --</p> <p>3 THE WITNESS: Yes.</p> <p>4 MR. STRONSKI: -- in the binder.</p> <p>5 THE WITNESS: That's exactly where I am.</p> <p>6 A. Right.</p> <p>7 Q. (By Mr. Cleveland) Is this the monograph you</p> <p>8 were referencing?</p> <p>9 A. It is.</p> <p>10 Q. In fact, looking at the top, I see it says the</p> <p>11 injection contains the equivalent of not less than 92</p> <p>12 percent and not more than 108 percent of the labeled</p> <p>13 amount.</p> <p>14 A. Right.</p> <p>15 Q. Does that mean that 92 percent is the minimum</p> <p>16 purity for use or am I misunderstanding that?</p> <p>17 MR. STRONSKI: Objection to form.</p> <p>18 A. It's the minimum content --</p> <p>19 Q. (By Mr. Cleveland) Okay.</p> <p>20 A. -- of pentobarbital sodium in a sterile</p> <p>21 solution.</p> <p>22 Q. What's the difference between a content and</p> <p>23 purity?</p> <p>24 MR. STRONSKI: Objection to form.</p> <p>25 A. Well, purity suggests that we're looking at</p>

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1 the -- let me try and -- and be careful about that.

2 There are a number of different aspects of purity.

3 **Q. (By Mr. Cleveland) Uh-huh.**

4 A. Including in the presence of impurities that
5 might be considered.

6 **Q. Uh-huh.**

7 A. But in this case, the monograph specification
8 refers specifically to the content of pentobarbital
9 sodium per se.

10 **Q. Okay.**

11 A. So when Gupta reported 6 percent after some
12 time in boiling water --

13 **Q. Uh-huh.**

14 A. -- that certainly would still be within this
15 monograph's range.

16 **Q. Uh-huh. And then what does it mean to have**
17 **108 percent of the labeled amount?**

18 A. It means that the analytical outcome showed
19 that relative to a standard --

20 **Q. Uh-huh.**

21 A. -- there was 108 percent of the component, in
22 this case, the pentobarbital sodium, and it's an
23 acknowledgment of the fact that there's some
24 variability --

25 **Q. Uh-huh.**

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1 A. -- in analytical outcomes.

2 **Q. Yeah.**

3 A. And one would expect a range from plus or
4 minus the expected content.

5 **Q. Understood. Flipping back to Gupta here, I**
6 **forget -- it's page 168 in the PDF, but I forget what**
7 **tab number it was in your binder.**

8 A. Okay.

9 MR. STILLWATER: 7.

10 MR. CLEVELAND: Okay.

11 A. Thank you. Let's see. I guess tab 7 in this
12 binder.

13 MR. STRONSKI: Was there a question pending?
14 I -- I didn't --

15 MR. CLEVELAND: Not yet. I was waiting --

16 MR. STRONSKI: Okay.

17 MR. CLEVELAND: -- for the witness to tell
18 me --

19 MR. STRONSKI: Got it.

20 MR. CLEVELAND: -- he's got to tab 7 --

21 MR. STRONSKI: Okay.

22 THE WITNESS: I have it.

23 MR. STRONSKI: Great. Great.

24 MR. CLEVELAND: He's still looking, so --

25 MR. STRONSKI: Thank you. Thanks.

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1 MR. CLEVELAND: Yeah.

2 **Q. (By Mr. Cleveland) I say, Great. Are you at**
3 **tab 7 now, Doctor?**

4 A. Yes.

5 **Q. Okay. This one, so looking at the subtitle on**
6 **this page, it says Preparation of Injection For**
7 **Stability Studies. I believe it says re-packaged it**
8 **into both glass syringes and polypropylene syringes. Am**
9 **I reading that correctly?**

10 A. Yes. That's in the paragraph headed
11 Preparation of Injection For Stability Studies.

12 **Q. Yeah.**

13 A. Yes.

14 **Q. And this one, I mean, it's a little more**
15 **broadly, I guess, with the study, but was there any**
16 **difference in the stability of pentobarbital sodium in**
17 **glass syringes as opposed to polypropylene syringes?**

18 A. Well, Gupta indicates that there was no
19 significant loss of potency in either case.

20 **Q. Yeah. And would you expect in your experience**
21 **any significant difference from using either syringe?**

22 MR. STRONSKI: Objection to form.

23 A. And your question again was --

24 **Q. (By Mr. Cleveland) Oh, yeah --**

25 A. -- would I expect --

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1 **Q. I said would you expect any difference in**
2 **potency of sodium pentobarbital in your experience from**
3 **using glass syringe versus polypropylene?**

4 MR. STRONSKI: Objection to form.

5 A. Per this report, I would not.

6 **Q. (By Mr. Cleveland) Okay. And this is with**
7 **one other reference in that paragraph I looked at**
8 **earlier, so give me a second here. That's a little**
9 **bit -- so I'll go back to your report for a second just**
10 **so I can catch the reference was. I believe in**
11 **paragraph 32 of your report, you had cited a report by**
12 **Priest and Geisbuhler.**

13 A. One moment.

14 MR. STRONSKI: So I think in your binder,
15 Dr. Block, that may be --

16 MR. CLEVELAND: 18.

17 MR. STRONSKI: -- tab 18.

18 A. Yes, I have it.

19 **Q. (By Mr. Cleveland) all right. I'm just**
20 **noting the on PDF Exhibit 1 I have here, it is page 135,**
21 **just for the record. Just to confirm we're looking at**
22 **the same thing, it's an article by Sidney M. Priest and**
23 **Timothy P. Geisbuhler?**

24 A. Yes.

25 **Q. And it's entitled Injectable Sodium**

<p style="text-align: right;">Page 38</p> <p>1 Pentobarbital Stability at Room Temperature?</p> <p>2 A. Right.</p> <p>3 Q. And the Bates I have on it is Glossip 002021,</p> <p>4 the page number at the bottom.</p> <p>5 A. Right.</p> <p>6 Q. This one, I'm actually going to go down from</p> <p>7 the front page. I was looking at the third page of this</p> <p>8 study. It's actually the third carrying on to the</p> <p>9 fourth, so page 2023 and 2024 under the heading</p> <p>10 Discussion.</p> <p>11 A. Yes.</p> <p>12 Q. And I see that they describe that there are</p> <p>13 other methods of dissolving sodium pentobarbital than</p> <p>14 the one that they used in this study. Now, my question</p> <p>15 for you is, do you think that the method of</p> <p>16 dissolving -- or the methods of dissolving they discuss,</p> <p>17 the one they used or not, would make any difference to</p> <p>18 the results they displayed here?</p> <p>19 MR. STRONSKI: Objection to form.</p> <p>20 Q. (By Mr. Cleveland) In fact, let me make that</p> <p>21 more precise, because I think they say the -- they say</p> <p>22 there's a different method the University of Mississippi</p> <p>23 has published for dissolving the drug first in ethanol.</p> <p>24 And my question was, if they had used the University of</p> <p>25 Mississippi's method they list here rather than the</p>	<p style="text-align: right;">Page 40</p> <p>1 solution.</p> <p>2 Q. Okay. And then but you haven't reviewed the</p> <p>3 University of Mississippi's method, correct?</p> <p>4 A. I did not go further into that, no.</p> <p>5 Q. Okay. And on I believe it's -- well, this</p> <p>6 same page and the one before, I was looking at this</p> <p>7 page. Let's start here, and I can share my screen on</p> <p>8 this one, make sure you can see it. I'm looking at</p> <p>9 figure 4 on that same page.</p> <p>10 MR. STRONSKI: You're not sharing your screen</p> <p>11 presently. Oh, there we go.</p> <p>12 MR. CLEVELAND: There we go. There.</p> <p>13 MR. STRONSKI: Okay.</p> <p>14 MR. CLEVELAND: Thanks for catching that.</p> <p>15 Thought it was up there.</p> <p>16 Q. (By Mr. Cleveland) All right. So looking at</p> <p>17 -- make sure I get it right here -- it's Glossip 2024,</p> <p>18 figure 4, and I see the sentence right above it where it</p> <p>19 says, "Originally our protocol specified examination of</p> <p>20 bottles of pentobarbital every six months," and they</p> <p>21 make the statements that, "The data in figures 2 and 4</p> <p>22 obviates the need for such frequent examination."</p> <p>23 And so my question was, and you can look at</p> <p>24 both terms if you'd like, figure 4 and 2, would you</p> <p>25 agree that -- with their statement that the data in</p>
<p style="text-align: right;">Page 39</p> <p>1 method they did, do you believe that would have changed</p> <p>2 the results at all of their study?</p> <p>3 MR. STRONSKI: Objection to form.</p> <p>4 A. I can't say for certain. I didn't review that</p> <p>5 section further.</p> <p>6 Q. (By Mr. Cleveland) Okay.</p> <p>7 A. They make reference to higher pH to keep the</p> <p>8 drug in solution.</p> <p>9 Q. Uh-huh. And what would the benefit or</p> <p>10 advantage be of dissolving the drug first in ethanol?</p> <p>11 MR. STRONSKI: Objection to form. Lack of</p> <p>12 foundation.</p> <p>13 Q. (By Mr. Cleveland) Sure. Well, the sentence</p> <p>14 here -- strike it and let me go here.</p> <p>15 The sentence about the University of</p> <p>16 Mississippi's method, Doctor, on page 2024.</p> <p>17 A. I see it.</p> <p>18 Q. And would you agree it says that their</p> <p>19 protocol involve -- involves the drug is dissolved first</p> <p>20 in ethanol?</p> <p>21 A. Right.</p> <p>22 Q. To the best of your knowledge, what benefit or</p> <p>23 difference would be obtained by dissolving the</p> <p>24 pentobarbital first in ethanol?</p> <p>25 A. Well, it's another approach to achieving</p>	<p style="text-align: right;">Page 41</p> <p>1 figures 2 and 4 obviates the need for examining bottles</p> <p>2 every six months?</p> <p>3 MR. STRONSKI: Objection to form. Lack of</p> <p>4 foundation. Beyond the scope.</p> <p>5 Q. (By Mr. Cleveland) Let me put it more</p> <p>6 precisely for you, Doctor --</p> <p>7 A. I'd have to -- right. I'd have to look at</p> <p>8 that a little more closely --</p> <p>9 Q. Yeah, in fact --</p> <p>10 A. -- to make --</p> <p>11 MR. STRONSKI: I don't think he's done</p> <p>12 answering.</p> <p>13 MR. CLEVELAND: Oh, yeah, I -- I know. I</p> <p>14 thought I had said I was going to rephrase my question.</p> <p>15 MR. STRONSKI: Oh, okay. Okay. That's fine.</p> <p>16 MR. CLEVELAND: That's all. I was going to</p> <p>17 just dry and redo my question for the doctor, because I</p> <p>18 thought I could give him more clarity there, but I can</p> <p>19 also --</p> <p>20 MR. STRONSKI: No, you -- please -- please --</p> <p>21 please rephrase your question --</p> <p>22 MR. CLEVELAND: Yeah, exactly. Let me</p> <p>23 rephrase it --</p> <p>24 MR. STRONSKI: -- I didn't hear that. I</p> <p>25 thought he was answering. Okay.</p>

<p>Page 42</p> <p>1 MR. CLEVELAND: Oh, yeah, it was --</p> <p>2 Q. (By Mr. Cleveland) You know, first of all,</p> <p>3 just looking at figure 2, going back to Glossip 2023,</p> <p>4 first, at a high level, what conclusions would you draw</p> <p>5 from this figure yourself?</p> <p>6 MR. STRONSKI: Objection to form.</p> <p>7 A. By and large, figure 2 shows that</p> <p>8 pentobarbital content did not vary all that much over an</p> <p>9 extended period of time. We're looking at these</p> <p>10 analyses of pentobarbital content over as much as 70,</p> <p>11 probably 72 months, so over as much as six years.</p> <p>12 Q. (By Mr. Cleveland) And so based on this</p> <p>13 figure, would you expect pentobarbital sodium to be</p> <p>14 stable at least 72 months?</p> <p>15 A. Well --</p> <p>16 MR. STRONSKI: Objection to form. Beyond the</p> <p>17 scope.</p> <p>18 A. The data suggests that it would be stable.</p> <p>19 Q. (By Mr. Cleveland) Okay.</p> <p>20 A. At least the solutions that were prepared by</p> <p>21 this group.</p> <p>22 Q. Okay. Understood. Yeah, and then scrolling</p> <p>23 down here, on -- this is page 2024, I believe. Make</p> <p>24 sure I have the number right. Yeah, page 2024, again,</p> <p>25 page 138 on the PDF. On the last paragraph on the right</p>	<p>Page 44</p> <p>1 A. That's their statement.</p> <p>2 Q. My question was, do you agree with it or</p> <p>3 disagree?</p> <p>4 MR. STRONSKI: Same objections.</p> <p>5 A. That's something I think I'd have to review</p> <p>6 more closely.</p> <p>7 Q. (By Mr. Cleveland) Okay. In fact, let's go</p> <p>8 back to the monograph for a second, because I think it's</p> <p>9 the final question on that exhibit. It's marked -- it</p> <p>10 was Glossip 2258 or page 372 of Exhibit 1, but again, I</p> <p>11 forget the tab number for your pentobarbital sodium</p> <p>12 monograph.</p> <p>13 A. Uh-huh.</p> <p>14 Q. If you can turn that for a second. I'll ask</p> <p>15 one of your counsel to remind us the tab number. I</p> <p>16 think I have it on screen now, too.</p> <p>17 MR. STRONSKI: Perhaps --</p> <p>18 MS. STILLWATER: I think it's tab 20.</p> <p>19 MR. STRONSKI: -- we go to 20.</p> <p>20 Q. (By Mr. Cleveland) Okay.</p> <p>21 A. Right. I have it.</p> <p>22 Q. I say, does this monograph include the color</p> <p>23 of pentobarbital sodium?</p> <p>24 A. It does not.</p> <p>25 Q. Okay.</p>
<p>Page 43</p> <p>1 side, they discuss the discoloration to a yellow color</p> <p>2 of sodium pentobarbital?</p> <p>3 A. Yes.</p> <p>4 Q. Do the USP standards for sodium pentobarbital</p> <p>5 include the color of the solution?</p> <p>6 MR. STRONSKI: Objection to form.</p> <p>7 A. I would have to go back to the USP</p> <p>8 monograph --</p> <p>9 Q. (By Mr. Cleveland) Okay.</p> <p>10 A. -- regarding the description --</p> <p>11 Q. Okay.</p> <p>12 A. -- of the solution.</p> <p>13 Q. In fact, here it's -- this study -- is it --</p> <p>14 let's see here. They say -- the sentence you can see,</p> <p>15 it's about the third sentence down here that there may</p> <p>16 be, in fact no -- may, in fact, be no good reason for</p> <p>17 disqualifying these preparations from use. My question</p> <p>18 was whether you agreed or disagreed with their statement</p> <p>19 that may be no reason to disqualify a yellowed sample</p> <p>20 from use?</p> <p>21 MR. STRONSKI: Objection to form.</p> <p>22 A. Well, that's --</p> <p>23 MR. STRONSKI: Outside the scope.</p> <p>24 Q. (By Mr. Cleveland) All right. I think -- I</p> <p>25 think he finished the objections. Go ahead, Doctor.</p>	<p>Page 45</p> <p>1 MR. CLEVELAND: Now, Doctor, we've been going</p> <p>2 for about an hour, and like I said earlier, I usually</p> <p>3 like to set about breaks every hour. Would you like to</p> <p>4 take a break now?</p> <p>5 THE WITNESS: That would be appreciated.</p> <p>6 MR. CLEVELAND: All right. I'd say let's do</p> <p>7 about a 10-minute break now, if that sounds good to</p> <p>8 everyone.</p> <p>9 THE WITNESS: Okay.</p> <p>10 MR. STRONSKI: That's fine.</p> <p>11 THE VIDEOGRAPHER: We're off the record at --</p> <p>12 off the record at 10:11 a.m.</p> <p>13 (A recess was taken from 10:11 a.m. to</p> <p>14 10:30 a.m.)</p> <p>15 THE VIDEOGRAPHER: The time is 10:30 a.m.</p> <p>16 We're going back on the record.</p> <p>17 Q. (By Mr. Cleveland) All right. Doctor, now in</p> <p>18 the -- going on to the next paragraph in your report, so</p> <p>19 I guess going to paragraph 33 of your report, which is</p> <p>20 page 10 of Exhibit 1.</p> <p>21 A. Yes.</p> <p>22 Q. Now, in here, you mention -- you're talking</p> <p>23 about room temperature storage of an appropriately</p> <p>24 compounded sterile solution of pentobarbital sodium, and</p> <p>25 I think this may be covered to some degree here, but</p>

<p style="text-align: right;">Page 46</p> <p>1 wanted to make sure I understood a couple of terms</p> <p>2 correctly.</p> <p>3 How do you define the word sterile as you use</p> <p>4 it here?</p> <p>5 A. Absence of microbial entities.</p> <p>6 Q. Okay. And what would cause a solution to not</p> <p>7 be sterile?</p> <p>8 A. Introduction of bacteria or other organisms by</p> <p>9 contaminated equipment or containers or accessories,</p> <p>10 exposure to the air, etcetera.</p> <p>11 Q. Okay.</p> <p>12 A. Any number of ways that these intruders could</p> <p>13 gain access to the solution --</p> <p>14 Q. Okay.</p> <p>15 A. -- in preparation.</p> <p>16 Q. You then -- you've also used the term</p> <p>17 appropriately compounded. My question would be how</p> <p>18 would pentobarbital sodium be inappropriately</p> <p>19 compounded?</p> <p>20 MR. STRONSKI: Objection to form.</p> <p>21 A. One didn't follow the appropriate steps in</p> <p>22 compounding a solution and rendering it sterile.</p> <p>23 Q. (By Mr. Cleveland) Okay. And are the steps</p> <p>24 described in Priest and Geisbuhler and Gupta that you</p> <p>25 cited in paragraph 32 appropriate compounding?</p>	<p style="text-align: right;">Page 48</p> <p>1 here for you to know whether they appropriately</p> <p>2 compounded sodium pentobarbital?</p> <p>3 MR. STRONSKI: Objection to form. Lack of</p> <p>4 foundation.</p> <p>5 A. One has to assume that they followed standard</p> <p>6 -- standard protocols for preparing sterile solutions or</p> <p>7 compounding them.</p> <p>8 Q. (By Mr. Cleveland) Okay. And then turn to</p> <p>9 the other one in Priest and Geisbuhler, which I have at</p> <p>10 page 135 of Exhibit 1.</p> <p>11 A. Just a moment.</p> <p>12 MR. STRONSKI: It's tab 18 in your binder.</p> <p>13 A. Yes.</p> <p>14 Q. (By Mr. Cleveland) And then I'll let you take</p> <p>15 a minute to review, and the question would just be</p> <p>16 whether the compounding steps taken by Priest and</p> <p>17 Geisbuhler are the appropriate compounding steps in your</p> <p>18 view?</p> <p>19 A. This is a little more complete --</p> <p>20 Q. Uh-huh.</p> <p>21 A. -- than what Gupta had cited, so it provides</p> <p>22 additional detail that would be appropriate to</p> <p>23 compounding the solution.</p> <p>24 Q. Are there any details missing from their</p> <p>25 description of how they compounded sodium pentobarbital?</p>
<p style="text-align: right;">Page 47</p> <p>1 A. I'd have to go back and review their</p> <p>2 statements. It's not always clear that papers such as</p> <p>3 those would recite in detail exactly what steps were</p> <p>4 followed in preparing the solution.</p> <p>5 Q. Okay. I mean, I'm happy to give you here a</p> <p>6 minute too, because I would be interested for your take</p> <p>7 on it.</p> <p>8 A. Okay.</p> <p>9 Q. Let's flip to Gupta again for second, I guess.</p> <p>10 MR. STRONSKI: Be tab 7.</p> <p>11 Q. (By Mr. Cleveland) Tab 7.</p> <p>12 A. I'm there.</p> <p>13 Q. Page 168.</p> <p>14 A. Right.</p> <p>15 Q. And so, I mean, obviously I'll let you review,</p> <p>16 but the question, in particular, would just be whether</p> <p>17 the compounding done in the Gupta study is the</p> <p>18 appropriate steps in your view?</p> <p>19 A. Well, their description of the preparation for</p> <p>20 injection for stability studies --</p> <p>21 Q. Uh-huh.</p> <p>22 A. -- and the preparation of standard solutions</p> <p>23 is somewhat terse, so some of the aspects perhaps are</p> <p>24 not delineated.</p> <p>25 Q. Okay. So there's insufficient description</p>	<p style="text-align: right;">Page 49</p> <p>1 A. Well, one would have to be careful to note</p> <p>2 that this is preparing a solution, a sterile solution of</p> <p>3 sodium pentobarbital with the specific components that</p> <p>4 they cite.</p> <p>5 Q. Understood. I guess the question would still</p> <p>6 be, would the specific components they cite for</p> <p>7 preparing the sterile solution, are there any steps</p> <p>8 that are omitted from their description in your view?</p> <p>9 MR. STRONSKI: Objection to form.</p> <p>10 A. Without reviewing that more carefully, I would</p> <p>11 say at least at the outset, that it looks to be</p> <p>12 complete.</p> <p>13 Q. (By Mr. Cleveland) Okay. I'm going to turn</p> <p>14 back to your report.</p> <p>15 A. Okay.</p> <p>16 Q. I'm going to go to the sodium pentothal</p> <p>17 section starting at paragraph 34.</p> <p>18 A. Yes.</p> <p>19 Q. Again, first a terminology question. I say, I</p> <p>20 have often will call it sodium thiopental and I see you</p> <p>21 have three other variations here. If I say sodium</p> <p>22 thiopental, will you understand that I mean the same</p> <p>23 thing as sodium pentothal?</p> <p>24 A. Yes.</p> <p>25 Q. Okay. And all these terms can be fairly used</p>

<p style="text-align: right;">Page 50</p> <p>1 interchangeably?</p> <p>2 A. They have been.</p> <p>3 Q. Okay. Making sure I get my terms correct. In</p> <p>4 paragraph 36, you mentioned that sodium thiopental is</p> <p>5 approved in the US for a certain list of uses?</p> <p>6 A. Yes.</p> <p>7 Q. I noticed the citation you had in footnote 19,</p> <p>8 so I'm going to do a -- paragraph 36 says that it's an</p> <p>9 archived drug label. Is sodium thiopental still</p> <p>10 approved by the FDA, even though there's no current drug</p> <p>11 label?</p> <p>12 MR. STRONSKI: Objection to form. Beyond the</p> <p>13 scope.</p> <p>14 Q. (By Mr. Cleveland) First question, Doctor,</p> <p>15 did you write in your report that sodium thiopental was</p> <p>16 approved in the US for the following?</p> <p>17 A. Yes.</p> <p>18 Q. And how do you know that it is currently</p> <p>19 approved in the US</p> <p>20 A. Well, one could go to fda.gov and see what the</p> <p>21 current status is for sodium thiopental or pentothal</p> <p>22 sodium.</p> <p>23 Q. And did you go to fda.gov to check --</p> <p>24 A. I did.</p> <p>25 Q. Okay. And did you find any current drug</p>	<p style="text-align: right;">Page 52</p> <p>1 A. Right.</p> <p>2 Q. This one, I'm actually going to go to the</p> <p>3 fifth page of the study, which is Glossip 002037, and at</p> <p>4 the heading labeled Discussion, page 151 of Exhibit 1.</p> <p>5 A. Yes.</p> <p>6 Q. It says, "The five factors usually considered</p> <p>7 when evaluating the stability of a drug are chemical,</p> <p>8 microbiological, physical, therapeutic and toxilogical</p> <p>9 stability."</p> <p>10 Do you see that?</p> <p>11 MR. STRONSKI: You're reading from the first</p> <p>12 paragraph?</p> <p>13 MR. CLEVELAND: Yeah, from the first</p> <p>14 paragraph --</p> <p>15 A. Yes, I see.</p> <p>16 Q. (By Mr. Cleveland) -- and the second</p> <p>17 sentence. Okay. And this one, just wanted some help</p> <p>18 understanding these terms. I guess I can go one by one.</p> <p>19 What is -- what's the definition of chemical stability?</p> <p>20 A. Well, chemical stability refers to the</p> <p>21 compound not undergoing any chemical changes. In other</p> <p>22 words, changes to the drug molecule.</p> <p>23 Q. Okay.</p> <p>24 A. That would result in the transformation of the</p> <p>25 original molecule to others.</p>
<p style="text-align: right;">Page 51</p> <p>1 labels on fda.gov?</p> <p>2 A. I did not.</p> <p>3 Q. Okay. And does the lack of any current FDA</p> <p>4 drug label limit the approved uses of sodium thiopental</p> <p>5 in the US?</p> <p>6 MR. STRONSKI: Objection to form. Beyond the</p> <p>7 scope.</p> <p>8 A. The lack of a commercial product --</p> <p>9 Q. (By Mr. Cleveland) Uh-huh?</p> <p>10 A. -- doesn't obviate the appropriateness of the</p> <p>11 use of the material.</p> <p>12 Q. Okay. Going down here to paragraph 37 and 38,</p> <p>13 I see you cite a Haws, et al study?</p> <p>14 A. Yes.</p> <p>15 Q. I want to turn to that study for a minute.</p> <p>16 A. Okay.</p> <p>17 Q. And I'll need assistance from your counsel to</p> <p>18 know what tab it is in your binder. I have it as page</p> <p>19 147 in Exhibit 1.</p> <p>20 A. Tab 8.</p> <p>21 Q. Okay. You got it.</p> <p>22 A. In our binder.</p> <p>23 Q. All right. That works. I'm just confirming</p> <p>24 we're on the same page, I have Glossip 002033, the page</p> <p>25 number at the bottom?</p>	<p style="text-align: right;">Page 53</p> <p>1 Q. And what is microbiological stability?</p> <p>2 A. If the solution prepared or preparation is</p> <p>3 originally sterile, that it main sustains that sterility</p> <p>4 over the course of that study.</p> <p>5 Q. And what is physical stability?</p> <p>6 A. That there -- that's stability that does not</p> <p>7 involve any physical changes, whether it's the clarity</p> <p>8 of the solution or its -- or the formation of</p> <p>9 particulates or discoloration. All of that could be</p> <p>10 considered physical instability if it occurred.</p> <p>11 Q. And what is therapeutic stability?</p> <p>12 A. Well, therapeutic stability meaning that it</p> <p>13 has the same efficacy after storage as it did</p> <p>14 originally.</p> <p>15 Q. And how is therapeutic stability different</p> <p>16 from potency?</p> <p>17 A. Well, I think the terms potency and efficacy</p> <p>18 and so on need to be defined.</p> <p>19 Q. Okay.</p> <p>20 A. I was not asked to consider therapeutic</p> <p>21 stability.</p> <p>22 Q. How would you define potency?</p> <p>23 A. As the ability of a substance to produce an</p> <p>24 effect.</p> <p>25 Q. Okay. And I guess the fifth term here, how</p>

<p>Page 54</p> <p>1 would you define toxicological stability?</p> <p>2 A. Again, it depends on what one considers to be</p> <p>3 evidence of toxicology, adverse effects, unwanted</p> <p>4 effects.</p> <p>5 Q. Okay.</p> <p>6 A. And that could involve a whole array of</p> <p>7 different post-administration reactions or consequences.</p> <p>8 Again, I was not asked to opine on that.</p> <p>9 Q. Okay. And then on the second paragraph of the</p> <p>10 discussion here, and I believe it's the third sentence,</p> <p>11 has the phrase that, "Solutions of barbiturates degrade</p> <p>12 relatively rapidly over time."</p> <p>13 A. Yes.</p> <p>14 Q. Now, I say, is pentobarbital a barbiturate?</p> <p>15 A. It is.</p> <p>16 Q. Does pentobarbital degrade relatively rapidly?</p> <p>17 Or let me rephrase that.</p> <p>18 Do solutions of pentobarbital degrade</p> <p>19 relatively rapidly over time?</p> <p>20 A. Properly compounded or formulated solutions of</p> <p>21 pentobarbital are relatively stable.</p> <p>22 Q. Okay. Do solutions of sodium thiopental</p> <p>23 degrade faster than solutions of sodium pentobarbital?</p> <p>24 MR. STRONSKI: Objection to form. Lack of</p> <p>25 foundation.</p>	<p>Page 56</p> <p>1 Q. Yep, it's --</p> <p>2 A. Okay.</p> <p>3 Q. -- page 2037. And this one, I'm looking at</p> <p>4 the last paragraph on the right-hand side, which starts</p> <p>5 "in summary"?</p> <p>6 A. Yes.</p> <p>7 Q. And they mention syringes --</p> <p>8 MR. STRONSKI: I'm sorry, where are we?</p> <p>9 MR. CLEVELAND: Oh, it's page 151 of the PDF.</p> <p>10 It's Glossip 002037, and it's the last paragraph on the</p> <p>11 right-hand side starting "in summary."</p> <p>12 MR. STRONSKI: Got it. Thank you.</p> <p>13 MR. CLEVELAND: Yeah, No worries.</p> <p>14 Q. (By Mr. Cleveland) And it mentions here it</p> <p>15 was prepared by an operating room pharmacy under a</p> <p>16 sterile hood. Do you see that?</p> <p>17 A. I do.</p> <p>18 Q. Now, first, what is an operating hood</p> <p>19 pharmacy?</p> <p>20 A. Well, that's their expression. It's a</p> <p>21 pharmacy environment, I would assume, adjacent to or</p> <p>22 part of an OR, an operating room.</p> <p>23 Q. Okay.</p> <p>24 A. But I'm not clear about that. I'm not</p> <p>25 certain. That's their terminology.</p>
<p>Page 55</p> <p>1 A. I would have to check back as to the</p> <p>2 comparative stability of solutions of thiopental versus</p> <p>3 pentobarbital.</p> <p>4 Q. Okay.</p> <p>5 A. But there is a difference.</p> <p>6 Q. Okay. And -- and this may be in your report</p> <p>7 too, so you can flip back if you need, but what</p> <p>8 conclusion about the stability of sodium thiopental did</p> <p>9 you arrive at from reviewing this study?</p> <p>10 MR. STRONSKI: Objection to form.</p> <p>11 A. Well, based on the work of Haws primarily,</p> <p>12 stability of aqueous sodium pentothal solutions prepared</p> <p>13 for use by a compounding pharmacy can be maintained for</p> <p>14 six days at room temperature and much longer if</p> <p>15 refrigerated.</p> <p>16 Q. (By Mr. Cleveland) When you say six days at</p> <p>17 room temperature, isn't that a shorter timeframe than</p> <p>18 you had said that sodium pentobarbital solution can be</p> <p>19 maintained at room temperature?</p> <p>20 A. Yes.</p> <p>21 MR. STRONSKI: Objection to form.</p> <p>22 Q. (By Mr. Cleveland) Okay. One other thing,</p> <p>23 back on the Haws study again on the discussion page,</p> <p>24 page 151 of Exhibit 1 or Glossip 2037.</p> <p>25 A. Just a moment. 37?</p>	<p>Page 57</p> <p>1 Q. Understood. I guess the other one they</p> <p>2 mentioned, under a sterile hood. My question --</p> <p>3 A. Right.</p> <p>4 Q. -- is a sterile hood typically part of the</p> <p>5 process of preparing syringes of thiopental?</p> <p>6 MR. STRONSKI: Objection to form.</p> <p>7 A. A sterile hood --</p> <p>8 Q. (By Mr. Cleveland) Uh-huh.</p> <p>9 A. -- sometimes referred to as a laminar flow</p> <p>10 facility --</p> <p>11 Q. Uh-huh.</p> <p>12 A. -- would be considered a standard component in</p> <p>13 a facility that processes -- that processes sterile</p> <p>14 preparations.</p> <p>15 Q. Okay. Flip back to your report here on</p> <p>16 paragraph 39. It's the title Heparin Saline Solution.</p> <p>17 It's page 12 of Exhibit 1.</p> <p>18 A. Right.</p> <p>19 Q. And I guess looking across paragraphs 39</p> <p>20 through 41, my question was, if you have any opinion on</p> <p>21 the maximum time that a solution of Heparin can be</p> <p>22 stored at room temperature with no loss of Heparin</p> <p>23 activity?</p> <p>24 MR. STRONSKI: Objection to form. Lack of</p> <p>25 foundation.</p>

<p style="text-align: right;">Page 58</p> <p>1 Q. (By Mr. Cleveland) Okay. We can start here.</p> <p>2 I mean, paragraph 41, you had -- if I'm reading it</p> <p>3 correctly, had cited a reference that solutions of</p> <p>4 Heparin can be stored in normal saline at room</p> <p>5 temperature with no loss of Heparin activity over 48</p> <p>6 hours?</p> <p>7 A. Yes.</p> <p>8 Q. And my question was, when it says over 48</p> <p>9 hours, do you know what the maximum time is beyond 48</p> <p>10 hours?</p> <p>11 A. I'd have to --</p> <p>12 MR. STRONSKI: Objection to form.</p> <p>13 A. -- examine the Mitchell report to see whether,</p> <p>14 in fact, a further extension might be possible based on</p> <p>15 their data, so...</p> <p>16 Q. (By Mr. Cleveland) So I can give you a chance</p> <p>17 to look at it here too.</p> <p>18 A. Yes.</p> <p>19 Q. Pull it up here and see if I can find my page</p> <p>20 number on it too.</p> <p>21 MR. STRONSKI: Tab 11 in your binder,</p> <p>22 Dr. Block.</p> <p>23 A. Yes, thank you. Okay.</p> <p>24 Q. (By Mr. Cleveland) Making sure we're on the</p> <p>25 same page here. I have -- my Glossip number is Glossip</p>	<p style="text-align: right;">Page 60</p> <p>1 A. I don't believe I cited other references to</p> <p>2 Heparin stability.</p> <p>3 Q. Okay. I want to turn now to a different one</p> <p>4 on looking at the monographs. This one, I don't think</p> <p>5 we've looked at yet, it's the sodium thiopental</p> <p>6 monograph. I have it as page 373 of the Exhibit 1 PDF</p> <p>7 and it's Glossip 2259.</p> <p>8 A. Yes, I see that.</p> <p>9 Q. This one, it says at the first paragraph, "NLT</p> <p>10 93 percent and NMT 107 percent of the labeled amount."</p> <p>11 I say, first, on a basic level, is NLT and NMT just mean</p> <p>12 not lesser than and not more than?</p> <p>13 A. Not less than is NLT and NMT is not more than.</p> <p>14 Q. Okay. And so these, again, are the -- or I</p> <p>15 should say, are these the limits on the acceptable</p> <p>16 composition of a solution of thiopental sodium for</p> <p>17 injection?</p> <p>18 A. Yes.</p> <p>19 Q. Okay.</p> <p>20 A. It's recognition of the variability and</p> <p>21 analytical outcomes.</p> <p>22 Q. And if you know, why would the minimum sodium</p> <p>23 thiopental be 93 percent if the minimum for sodium</p> <p>24 pentobarbital was 92 percent?</p> <p>25 A. It's all based on a statistical analysis of</p>
<p style="text-align: right;">Page 59</p> <p>1 002170 at the bottom.</p> <p>2 A. Right.</p> <p>3 Q. Okay. And it's page 284 of the Exhibit 1 PDF.</p> <p>4 A. I see that.</p> <p>5 Q. And then question was just, you know, on</p> <p>6 reviewing this study, if you knew what the maximum time</p> <p>7 was over 48 hours that Heparin could be at room</p> <p>8 temperature?</p> <p>9 MR. STRONSKI: Objection to form.</p> <p>10 A. The report by Mitchell and co-workers --</p> <p>11 Q. (By Mr. Cleveland) Uh-huh.</p> <p>12 A. Just employed a 48-hour period --</p> <p>13 Q. Okay.</p> <p>14 A. -- for evaluation.</p> <p>15 Q. Okay.</p> <p>16 A. So it would be difficult to extrapolate beyond</p> <p>17 that time based on their report.</p> <p>18 Q. And I believe this is just turning back to</p> <p>19 paragraph 41 of your report. I'll give you a sec here.</p> <p>20 A. Yes.</p> <p>21 Q. I see, of course, there's the citations to</p> <p>22 Mitchell and Shaw. My question was just whether there</p> <p>23 were any other studies in your cited sources here that</p> <p>24 discussed the storage solutions of Heparin at room</p> <p>25 temperature?</p>	<p style="text-align: right;">Page 61</p> <p>1 the analytical results and so the variability may be</p> <p>2 different in those two cases. They would not be the</p> <p>3 same in one instance as in the other.</p> <p>4 Q. Okay. And I guess I should clarify too. Are</p> <p>5 these acceptance criteria meaning that it would be safer</p> <p>6 use in humans at those levels?</p> <p>7 MR. STRONSKI: Objection to form. Lack of</p> <p>8 foundation.</p> <p>9 Q. (By Mr. Cleveland) Maybe I can clarify first</p> <p>10 too actually. I mean, when it says contains not less</p> <p>11 than 93 percent and not more than 107 percent, is that</p> <p>12 the acceptance criteria?</p> <p>13 A. It would be.</p> <p>14 Q. Okay. And is a solution that meets the</p> <p>15 acceptance criteria safe for use in humans?</p> <p>16 MR. STRONSKI: Objection to form --</p> <p>17 A. I was not asked to --</p> <p>18 MR. STRONSKI: -- lack of foundation. Beyond</p> <p>19 the scope.</p> <p>20 A. -- opine on the safety of the -- of the</p> <p>21 formulation.</p> <p>22 Q. (By Mr. Cleveland) Sorry, Doctor. I missed</p> <p>23 the first half of what you said there.</p> <p>24 A. I was not asked to opine on the safety of the</p> <p>25 formulations.</p>

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1 **Q. Okay. I mean, do you have an opinion on**
 2 **whether thiopental sodium at that acceptance criteria**
 3 **could be used on humans?**

4 A. Well, with the USP's designation of these
 5 upper and lower limits, solutions within that range I
 6 would assume are acceptable for administration.

7 **Q. Okay. And would that also be -- let me put it**
 8 **differently.**

9 **Would a prepared solution of sodium**
 10 **pentobarbital that meets the acceptance criteria in the**
 11 **drug monograph for that solution also be safe for use in**
 12 **humans?**

13 A. Referring to pentobarbital?

14 **Q. Right. And so it's referring to the monograph**
 15 **at Glossip 2258 or page 372 of the PDF.**

16 A. Right, I have that.

17 MR. STRONSKI: Objection to form.

18 **Q. (By Mr. Cleveland) Yeah.**

19 A. And the monograph states that injection
 20 contains not less than 92 percent, 92.0 percent, not
 21 more than 108.0 percent of the labeled amount of
 22 pentobarbital sodium.

23 **Q. Yeah, and so then my question on that would be**
 24 **similar. Would a solution of pentobarbital sodium that**
 25 **meets that acceptance criteria be safe for use in**

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1 **humans?**

2 A. It's a --

3 MR. STRONSKI: Objection to form. Lack of
 4 foundation. Beyond the scope.

5 A. -- I was not asked to address the safety of
 6 the preparation.

7 **Q. (By Mr. Cleveland) And, again, I guess I**
 8 **should start too, would you agree that this statement**
 9 **about not less than 92 percent and not more than 108**
 10 **percent is the acceptance criteria for pentobarbital**
 11 **sodium?**

12 A. It's the USP's statement, yes.

13 **Q. And is it the right term to say it's the USP's**
 14 **acceptance criteria?**

15 A. This is the expectation for a product that
 16 meets the USP designation.

17 **Q. What's the difference between that and**
 18 **acceptance criteria?**

19 A. Well, those are the acceptance criteria in
 20 terms of the content of, in this case, pentobarbital
 21 sodium.

22 **Q. Okay. And then my question was, would a**
 23 **solution of pentobarbital sodium that meets those**
 24 **acceptance criteria be safe for use in humans?**

25 MR. STRONSKI: Objection to the form. Beyond

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1 the scope.

2 A. Again, I was not asked to opine on the safety
 3 of the preparation.

4 **Q. (By Mr. Cleveland) But I say, my question now**
 5 **still, do you have an opinion on whether a solution that**
 6 **meets those acceptance criteria would be safe for**
 7 **injection in humans?**

8 MR. STRONSKI: Same objections.

9 A. I would have to review that issue a little
 10 more carefully --

11 **Q. (By Mr. Cleveland) Okay.**

12 A. -- in order to opine on safety or
 13 appropriateness.

14 **Q. Okay. This -- now I'm going to turn back to**
 15 **your report at paragraph -- starting in paragraph 42.**

16 A. What paragraph, please?

17 **Q. Paragraph 42. I have that on -- it starts**
 18 **with Preparation of Sterile Injections is the header,**
 19 **it's page 13 of the --**

20 A. Yes.

21 **Q. This is across a couple of paragraphs, but**
 22 **first I see that you mention on paragraph 42 a doctor of**
 23 **pharmacy degree and a Pharm D program. So my first**
 24 **question was, are those terms the same degree?**

25 A. They are.

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1 **Q. Okay. And then in paragraph 43, when you're**
 2 **talking about the North American Pharmacist Licensure**
 3 **Examination, my question was is this examination used by**
 4 **the boards of pharmacy in every state?**

5 A. As far as I know, yes.

6 **Q. Okay.**

7 A. I'm not absolutely certain of that, but it's a
 8 nationally accepted standard.

9 **Q. Okay. But it wasn't used in both the states**
 10 **where you obtained your license?**

11 A. I'd have to think back.

12 **Q. I know it was awhile ago.**

13 A. Pardon?

14 **Q. I said, oh, I know it was awhile ago.**

15 A. Yes. In 1962 when I took my board exams --

16 **Q. Uh-huh.**

17 A. -- I'm not certain there was a NAPLEX exam
 18 available.

19 **Q. Okay.**

20 A. Licensure in Pennsylvania was obtained by
 21 reciprocity, meaning that Pennsylvania, the Commonwealth
 22 of Pennsylvania, and the State of Maryland had a
 23 reciprocal relationship. Since I was registered in
 24 Maryland, I could obtain by reciprocity the
 25 corresponding license to practice in the Commonwealth of

<p>Page 66</p> <p>1 Pennsylvania.</p> <p>2 Q. Oh, yeah. We have a similar system in law</p> <p>3 licenses too. Yeah, I know I remember the years from</p> <p>4 your CV. I guess, do you know if that examination is</p> <p>5 used in those states now for licensure?</p> <p>6 A. The NAPLEX exam is currently used.</p> <p>7 Q. Is it currently used in Maryland or</p> <p>8 Pennsylvania?</p> <p>9 A. Yes.</p> <p>10 Q. Okay. Now, you mentioned both the Pharm D and</p> <p>11 the State Board of Pharmacy licensure. Is there any</p> <p>12 other education that a pharmacist would need to be able</p> <p>13 to prepare sterile compounding? Let me rephrase that.</p> <p>14 I didn't get that quite right.</p> <p>15 Is there any -- other than the Pharm D and the</p> <p>16 licensure listed here, is there any other education that</p> <p>17 a pharmacist would need to be able to prepare sterile</p> <p>18 compounds?</p> <p>19 A. Their professional education --</p> <p>20 Q. Okay.</p> <p>21 A. -- should include the practice, theoretical</p> <p>22 and practical, aspects of preparing sterile solutions --</p> <p>23 Q. Okay.</p> <p>24 A. -- the expectation that the ACPE has of</p> <p>25 appropriate accredited professional programs in pharmacy</p>	<p>Page 68</p> <p>1 I missed that. What was that? Your last sentence, I</p> <p>2 think I crossed talked --</p> <p>3 A. Was -- so 42, 43 and 44 describe what would be</p> <p>4 appropriate for an individual compounding these</p> <p>5 formulations.</p> <p>6 Q. Okay. Then in paragraph 44, you mention</p> <p>7 certificate of analysis. Do you see that?</p> <p>8 A. Yes.</p> <p>9 Q. I saw in your exhibits, I believe it's</p> <p>10 attached to the Swaan declaration, some certificates, so</p> <p>11 I wanted to pull those up for a minute. If I can find</p> <p>12 my page number here. On page 423 of the PDF, and it</p> <p>13 looks like it's page 17 of Exhibit C, the Swaan</p> <p>14 declaration. And I can share it too so we can see that</p> <p>15 we're on the same page.</p> <p>16 MR. STRONSKI: So where -- where are you in</p> <p>17 the Swaan declaration?</p> <p>18 MR. CLEVELAND: I'm on -- it's on page 423 of</p> <p>19 the PDF and it says at the top that it's page 17 of 26.</p> <p>20 It appears that's of the Swaan declaration.</p> <p>21 MR. STRONSKI: Is it -- is it one of the</p> <p>22 paragraphs in the declaration?</p> <p>23 MR. CLEVELAND: No, it's an attachment to the</p> <p>24 declaration. I should be sharing my screen now. If you</p> <p>25 can't see it, I can --</p>
<p>Page 67</p> <p>1 leading to the Pharm D degree.</p> <p>2 Q. Okay. So a -- would a pharmacist who</p> <p>3 graduated from an ACPE accredited Pharm D program have</p> <p>4 the relevant education to prepare sterile compounds?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. And would a pharmacist who passes the</p> <p>7 North American Licensure Examination have the relevant</p> <p>8 experience to compound a sterile -- sterile injectable</p> <p>9 preparation?</p> <p>10 A. Yes.</p> <p>11 Q. Okay. Then on paragraph 46 of your report,</p> <p>12 you mentioned that the -- these types of tests are</p> <p>13 routine for pharmacies and pharmacists that meet the</p> <p>14 current standards for the compounding of sterile</p> <p>15 preparations as described above.</p> <p>16 My question was, are those standards the</p> <p>17 description that you provided in paragraphs 42 and 43?</p> <p>18 A. The standards in 42 -- in paragraph 42 and</p> <p>19 43 --</p> <p>20 Q. Uh-huh.</p> <p>21 A. -- reflect -- reflect the appropriate training</p> <p>22 and education of pharmacists, and in 44, the guidelines</p> <p>23 for preparation, according to the USP, are cited as</p> <p>24 well.</p> <p>25 Q. Okay. So when you -- sorry. Go ahead. I --</p>	<p>Page 69</p> <p>1 A. Page -- page 17 of 26?</p> <p>2 Q. (By Mr. Cleveland) Yeah, it says document 231</p> <p>3 it says at the top here.</p> <p>4 A. Yes.</p> <p>5 MR. STRONSKI: Hold on a second.</p> <p>6 A. I have that.</p> <p>7 Q. (By Mr. Cleveland) Okay. Make sure your</p> <p>8 counsel found it there too.</p> <p>9 MR. STRONSKI: Okay. Very good.</p> <p>10 Q. (By Mr. Cleveland) Okay. And, in fact, and</p> <p>11 I'll make this is actually in your copy there, Doctor,</p> <p>12 too. I see there's this certificate and it looks like</p> <p>13 there was -- the next three -- or next two pages are</p> <p>14 also another certificate, page 18 and page 19 of 26.</p> <p>15 Do you see those?</p> <p>16 A. I have that.</p> <p>17 Q. All right. First, just a basic question. Is</p> <p>18 -- are these two examples representative of what you</p> <p>19 mean when you say a certificate of analysis in your</p> <p>20 report?</p> <p>21 A. They are examples of certificates of analysis.</p> <p>22 In this case, in each case, for solutions of the named</p> <p>23 drug, pentobarbital sodium at a concentration of 50</p> <p>24 milligrams per milliliter.</p> <p>25 Q. And just looking at the page 17 of 26, which</p>

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1 is page 423 of Exhibit 1, appears to me that there's
2 one, two, three, four, five different tests lifted --
3 listed on the left-hand side. Do you see that?

4 A. Just a moment. Are we going back to my
5 report?

6 Q. No, no, no. This is still on the same exhibit
7 to the Swaan --

8 A. Oh.

9 Q. -- declaration. That first certificate of
10 analysis.

11 A. Okay.

12 Q. All right. Now, on the tests column on the
13 left-hand side, I believe I see five different tests. I
14 say, do you also see five different tests listed there?

15 A. Just a moment.

16 Q. Uh-huh.

17 A. I see that.

18 Q. Are all five of these tests required on a
19 certificate of analysis?

20 MR. STRONSKI: Objection to form. Lack of
21 foundation. Beyond the scope.

22 Q. (By Mr. Cleveland) All right. I can -- we
23 can start first, Doctor, have you ever reviewed a
24 certificate of analysis before preparing this report?

25 A. I have.

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1 Q. Okay. Have you prepared a certificate of
2 analysis before?

3 A. I haven't prepared one. I have reviewed them.

4 Q. Okay. Have you reviewed more than one
5 certificate of analysis --

6 A. Yes.

7 Q. -- before preparing this report? Okay.

8 A. I have.

9 Q. Did the certificates that you reviewed
10 previously include all five of these tests?

11 A. The certificate of analysis typically would be
12 based on requirements in the corresponding USP
13 monograph.

14 Q. Okay. So if I reviewed the USP monograph for
15 pentobarbital sodium, I would know what tests are
16 required on a certificate of analysis?

17 A. That should indicate what would be required.

18 Q. Okay. Let's just flip back to it for a sec
19 and make sure I'm reading that monograph correctly. I
20 believe pentobarbital sodium was at Glossip 2258 or page
21 372.

22 A. Yes.

23 Q. Looking at this monograph, where does it say
24 on here what tests are required for a certificate of
25 analysis?

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1 A. Certificates of analysis are not cited
2 explicitly in the monograph.

3 Q. Okay.

4 A. In USP monographs. The monograph states the
5 expectations for the material.

6 Q. Right. Here, let me say that -- let me ask it
7 differently then here. I guess, looking at this
8 monograph for pentobarbital sodium, what are the tests
9 that you would say are necessary for a certificate of
10 analysis for pentobarbital sodium?

11 A. The identification, the result of a bacterial
12 endotoxin test.

13 Q. Okay.

14 A. The PH and other requirements under Chapter 1
15 of USP regarding injections and implanted drug product.

16 Q. Okay. I'll come back to that in a second, but
17 again, just going to go over to Glossip 2259, which is
18 the monograph for thiopental sodium. And I'm not sure I
19 can pull it up in a readable version for you on the
20 screen share, because the font might be sized too small
21 if I scroll out, so you may want a paper copy.

22 MR. STRONSKI: It's in your binder at 21,
23 Doctor.

24 A. There. Okay.

25 Q. (By Mr. Cleveland) Looking at this page 373

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1 of the Exhibit 1 PDF too, looking at this monograph for
2 thiopental sodium, what tests would you say are needed
3 on a certificate of analysis based on your review of
4 this monograph?

5 A. Identification, for one, by the tests cited in
6 USP. These are spectroscopic identification tests and
7 the result of an ignition test as another ID test and
8 then the outcome of the assay and other specific tests
9 that are cited for thiopental sodium for injection.

10 Q. And what is an ignition test?

11 A. That refers to a test involving heating a
12 sample of the product at high temperature and weighing
13 the residue.

14 Q. Okay. Now I'm going to flip back to your
15 report. Don't think I can get the share on now. This
16 is just going to go to paragraph -- I believe it's 40 --
17 sorry, had the wrong one on my note there. Yeah, no,
18 45, paragraph 45.

19 A. Yes.

20 Q. Now, you say there, compound solutions
21 prepared with non-sterile ingredients. Yeah, I mean, I
22 think we may have discussed this before, but what is a
23 non-sterile ingredient?

24 A. An ingredient that has not been certified to
25 be sterile.

<p>Page 74</p> <p>1 Q. Okay. And you mentioned receiving non-sterile 2 ingredients from a commercial supplier. If you know, 3 can commercial suppliers provide sterile active 4 ingredients?</p> <p>5 A. They can.</p> <p>6 Q. Okay.</p> <p>7 A. Assuming, of course, that the supplier is 8 providing the appropriate product.</p> <p>9 Q. Okay. And how do you know if the active 10 ingredient received from a commercial supplier is 11 sterile or not?</p> <p>12 A. It would have to be stated.</p> <p>13 Q. Okay. And whenever reviewing the tests for a 14 certificate of analysis, wasn't it true that there was a 15 bacterial test for solutions of sodium pentobarbital? 16 Obviously if you want to reference the monograph.</p> <p>17 A. You said for pentobarbital?</p> <p>18 Q. Uh-huh.</p> <p>19 A. Yes. You're referring to which test then?</p> <p>20 Q. Here, let me pull it up here. Yeah, the same 21 -- I mean, is the bacterial endotoxins test listed there 22 the one there for bacteria in the solution?</p> <p>23 MR. STRONSKI: Objection to form. Lack of 24 foundation.</p> <p>25 Q. (By Mr. Cleveland) Are we both on page</p>	<p>Page 76</p> <p>1 and be absolutely certain, but my recollection is that 2 that would also look for evidence of sterility.</p> <p>3 Q. Okay. And was that Chapter 1 attached to your 4 report?</p> <p>5 A. I don't believe it was.</p> <p>6 Q. Okay. And then, I mean, I'll put that request 7 just for you and your counsel, if you would mind sharing 8 a copy of that Chapter 1 cited in those monographs after 9 the deposition and questions are finished here.</p> <p>10 And so then turning back to your report again 11 on paragraph 45. And if a solution was prepared with 12 the non-sterile active ingredients as mentioned in your 13 paragraph 45, would any bacteria in the solution be 14 disclosed on the certificate of analysis that you listed 15 in paragraph 44?</p> <p>16 MR. STRONSKI: Objection to form.</p> <p>17 A. If the component that was supplied was not 18 sterile --</p> <p>19 Q. (By Mr. Cleveland) Uh-huh.</p> <p>20 A. -- there may not be an indication on the 21 certificate of analysis of the presence of bacteria or 22 other microbiological contaminants.</p> <p>23 Q. Okay. And so then the bacterial filter that 24 you -- or, actually, on paragraph 45, you mention a 25 bacterial filter, correct?</p>
<p>Page 75</p> <p>1 Glossip 2258, Doctor?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. And on this page, do you see a test 4 entitled Bacterial Endotoxins Test?</p> <p>5 A. I do.</p> <p>6 Q. Is that a test for bacteria in pentobarbital 7 sodium solution?</p> <p>8 A. It's a test for the presence of endotoxins.</p> <p>9 Q. Okay. And are there any other tests on this 10 monograph for bacteria in the solution?</p> <p>11 MR. STRONSKI: Objection to form. Lack of 12 foundation.</p> <p>13 A. Other tests -- could you repeat that just to 14 be clear?</p> <p>15 Q. Yeah, sure. I had asked -- here, let me 16 rephrase it too, so it's clearer.</p> <p>17 On this monograph for pentobarbital sodium at 18 Glossip 2258, do you see any other tests listed that 19 would test for bacteria other than the bacterial 20 endotoxins test?</p> <p>21 A. The list of other requirements as cited in USP 22 Chapter 1. --</p> <p>23 Q. Okay.</p> <p>24 A. -- under Injections and Implanted Drug 25 Products, I believe, I'd have to go back to that chapter</p>	<p>Page 77</p> <p>1 A. Yes.</p> <p>2 Q. What kind of bacteria does that filter filter, 3 for lack of a better word?</p> <p>4 A. Yes, an appropriately-sized filter would 5 filter out virtually all micro -- microbial 6 contaminates, if present.</p> <p>7 Q. Okay. And what would an appropriately-sized 8 bacterial filter be for a solution of sodium 9 pentobarbital?</p> <p>10 A. A typical bacterial filter would have a 11 porosity of about .2 micrometers.</p> <p>12 Q. Okay. And would -- in the filtering process 13 described in paragraph 45, would you use that same size 14 filter regardless of whether it's sodium pentobarbital 15 or sodium thiopental that you're filtering?</p> <p>16 A. In either case, that filter would be 17 appropriate.</p> <p>18 Q. Okay. And then let's see here. This one's 19 just a minor question on your attachments here. I was 20 looking through the USP ones, Glossip page 2057, which 21 is the -- it's titled Pharmaceutical Compounding Sterile 22 Preparations, page 171 of the Exhibit 1 PDF, if you can 23 turn to that for a minute.</p> <p>24 MR. STRONSKI: Hold on a second. I want to 25 make sure. You're not putting things up, so I have to</p>

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1 find it.

2 MR. CLEVELAND: Oh, yeah, exactly. And I say,
3 I can grab it here too there. I was making sure we can
4 get the tab number too. I just wanted him to have the
5 document in front of him as well.

6 MR. STRONSKI: What -- what are you pulling
7 up?

8 MR. CLEVELAND: Here, let me get it here.
9 It's page 171 of the PDF. It was labeled Glossip
10 002057. I believe, appears to be --

11 MR. STRONSKI: Yeah, it's -- it's -- it's tab
12 22 in your binder.

13 A. I have that.

14 **Q. (By Mr. Cleveland) Okay. And it's -- the**
15 **document in front of you is titled Pharmaceutical**
16 **Compounding Sterile Preparations?**

17 A. Yes.

18 **Q. And this is a USP document, correct?**

19 A. Yes.

20 **Q. The copy here at the top it says that no**
21 **longer official on this -- on 18th, December, 2020. Do**
22 **you see that?**

23 A. I do.

24 **Q. Do you know why this document is no longer**
25 **official?**

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1 A. It's been superseded by a newer -- a newer
2 chapter.

3 **Q. Okay. Have you reviewed the newer chapter?**

4 A. I have.

5 **Q. And were any of the changes in the newer**
6 **chapter related to sections that you're relying on in**
7 **your report?**

8 A. I did not make a direct comparison. It's my
9 understanding that compounding pharmacists are still
10 relying on 797 because there are still some issues that
11 need to be resolved before its successor is ultimately
12 approved and adopted.

13 **Q. Okay. And, I guess, just to be clear for my**
14 **own reference, when you say 797, does that number refer**
15 **to this particular version of pharmaceutical compounding**
16 **sterile preparations?**

17 A. It does.

18 MR. CLEVELAND: Okay. I know we're slightly
19 under an hour here. We're at 57 minutes, but this is a
20 -- I've hit a breaking point in a series of questions I
21 had, if you'd like to take another break here?

22 THE WITNESS: Okay.

23 MR. STRONSKI: So we're at 12 -- almost 12:30,
24 Dr. Block. Do you want to take a lunch break now or a
25 10-minute break or what -- what is your preference?

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1 THE WITNESS: Whatever you would do. At this
2 point, I could probably take a lunch break.

3 THE VIDEOGRAPHER: We're off the record at
4 11:28 a.m.

5 (A recess was taken from 11:28 a.m. to
6 12:08 a.m.)

7 THE VIDEOGRAPHER: The time is 12:08 p.m.
8 Going back on the record.

9 **Q. (By Mr. Cleveland) All right. At this time,**
10 **Doctor, I want to actually turn over to a different**
11 **exhibit. I'm going to pull up the expert report of**
12 **Dr. Sherman.**

13 A. Okay.

14 MR. STRONSKI: You may not have a hard copy of
15 that in a binder.

16 MR. CLEVELAND: Okay.

17 MR. STRONSKI: I don't know if he does or not.

18 MR. CLEVELAND: Okay.

19 MR. STRONSKI: It's not in -- it's not in the
20 same binder we've been looking at at least.

21 THE WITNESS: Okay.

22 MR. STRONSKI: So --

23 MS. STILLWATER: I don't think so, but
24 Dr. Block, unless you printed it yourself.

25 THE WITNESS: I think I do have it.

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1 MR. CLEVELAND: Okay.

2 THE WITNESS: Just a moment.

3 A. I have it. I did print it off.

4 **Q. (By Mr. Cleveland) Okay. Let's share for a**
5 **second here. Let's see. On my screen, I have a**
6 **document entitled Expert Opinion of David H. Sherman,**
7 **PhD.**

8 A. Right.

9 **Q. Is the document on the screen the same one**
10 **that you're looking at in front of you?**

11 A. It appears to be, 14665, yeah, yes.

12 **Q. Okay. And then I'll mark this as Exhibit 2.**
13 (Deposition Exhibit No. 2 was marked for
14 identification and made part of the record.)

15 **Q. (By Mr. Cleveland) Is this the report by**
16 **Dr. Sherman that you reviewed in preparation of your**
17 **report?**

18 A. Yes.

19 **Q. Okay. I guess I'll start a couple of high**
20 **level questions. Have you ever synthesized any**
21 **pharmaceuticals before?**

22 MR. STRONSKI: Objection to form.

23 A. I'm sure I have.

24 **Q. (By Mr. Cleveland) Okay. Have you**
25 **synthesized pentobarbital before?**


<p style="text-align: right;">Page 82</p> <p>1 A. I can't recall that specifically, no.</p> <p>2 Q. Okay. Have you synthesized sodium thiopental</p> <p>3 before?</p> <p>4 A. Again, I can't recall having done that either.</p> <p>5 I may have. I may not have.</p> <p>6 Q. Okay. Now, in reviewing Dr. Sherman's report,</p> <p>7 could you determine whether the method he is describing</p> <p>8 uses sterile or non-sterile ingredients?</p> <p>9 MR. STRONSKI: Objection to form.</p> <p>10 A. I -- I'd have to go back to his report.</p> <p>11 Q. (By Mr. Cleveland) Okay.</p> <p>12 A. If I may?</p> <p>13 Q. Yes, of course.</p> <p>14 A. His report only makes reference to the</p> <p>15 chemicals used in synthesis being purchased from</p> <p>16 commercial suppliers and used without further</p> <p>17 purification.</p> <p>18 Q. Okay. And if you know, what would the shelf</p> <p>19 life be of pentobarbital produced using his described</p> <p>20 method?</p> <p>21 MR. STRONSKI: Objection to form.</p> <p>22 A. I can't say for certain. I did not</p> <p>23 specifically review his report for that aspect. Just</p> <p>24 checking, if I may.</p> <p>25 Q. (By Mr. Cleveland) Of course.</p>	<p style="text-align: right;">Page 84</p> <p>1 Q. (By Mr. Cleveland) All right. And do you</p> <p>2 agree or disagree with paragraph 47 description of</p> <p>3 person of skill in the art?</p> <p>4 MR. STRONSKI: Objection to form. Beyond the</p> <p>5 scope.</p> <p>6 A. I would agree with Dr. Sherman's description.</p> <p>7 Q. (By Mr. Cleveland) Okay. And I think that's</p> <p>8 the questions I have on this report. I guess now I'm</p> <p>9 actually going to turn over to the -- back to your</p> <p>10 report first. Let's go to your report, paragraph --</p> <p>11 paragraph 19 of your report, which is page 7 of the</p> <p>12 Exhibit 1 PDF.</p> <p>13 A. Yes.</p> <p>14 Q. In the last sentence, you cite agreement with</p> <p>15 one of Dr. Swaan's opinions as subject to clarification.</p> <p>16 Do you see that?</p> <p>17 A. Yes, I do.</p> <p>18 Q. And when you say, "subject to clarification as</p> <p>19 explained below," are you referring to paragraphs 42</p> <p>20 through 44 of your declaration?</p> <p>21 A. Let me just review that.</p> <p>22 Q. Of course.</p> <p>23 A. And you're referencing 42?</p> <p>24 Q. 42 through 44. I was asking whether your use</p> <p>25 of "subject to clarification as explained below" in</p>
<p style="text-align: right;">Page 83</p> <p>1 A. So he does not make reference other than to</p> <p>2 the certificate of analysis that followed the</p> <p>3 preparation of the materials.</p> <p>4 Q. Okay. And do you otherwise know what the</p> <p>5 shelf life of pentobarbital would be based on the</p> <p>6 description he offers of his process?</p> <p>7 MR. STRONSKI: Objection to form. Lack of</p> <p>8 foundation. Beyond the scope.</p> <p>9 A. I can't make a -- there's really not enough</p> <p>10 information given here to be certain as to the stability</p> <p>11 of the material. This material was synthesized in his</p> <p>12 laboratory. That would require further study.</p> <p>13 Q. (By Mr. Cleveland) Okay. And then turning</p> <p>14 specifically to page -- I believe it's 14 of his report,</p> <p>15 paragraph 47. It's paragraph 14 of Exhibit 2 that has</p> <p>16 number 13 at the bottom.</p> <p>17 A. Paragraph?</p> <p>18 Q. 47 entitled, A Person of Skill In The Art.</p> <p>19 A. Right.</p> <p>20 Q. Now, first, based on your education, are you</p> <p>21 familiar with the skill necessary to synthesize</p> <p>22 pharmaceuticals?</p> <p>23 A. Yes.</p> <p>24 MR. STRONSKI: Objection to form. Lack of</p> <p>25 foundation.</p>	<p style="text-align: right;">Page 85</p> <p>1 paragraph 19 was referencing paragraphs 42 through 44 of</p> <p>2 your report?</p> <p>3 MR. STRONSKI: Objection to form.</p> <p>4 A. That would be consistent with paragraphs 42</p> <p>5 and 44.</p> <p>6 Q. (By Mr. Cleveland) Okay. Then I want to look</p> <p>7 at the Swaan declaration itself. This will be the</p> <p>8 actual declaration portion, so it's Exhibit C starting</p> <p>9 on page 377 of Exhibit 1, Exhibit C to your report.</p> <p>10 MR. STRONSKI: It's tab 3 in your binder.</p> <p>11 A. Okay.</p> <p>12 Q. (By Mr. Cleveland) And we'll actually go to</p> <p>13 paragraph 11 of the Swaan declaration, which is page 4</p> <p>14 of it, and it appears to be page 381 of Exhibit 1. --</p> <p>15 A. Yes.</p> <p>16 Q. -- paragraph 11. And if you'd review that</p> <p>17 paragraph for a second.</p> <p>18 A. Yes.</p> <p>19 Q. Do you agree with his statement in paragraph</p> <p>20 11?</p> <p>21 A. Yes.</p> <p>22 Q. Okay. And then turning to paragraph 15, which</p> <p>23 is on page 6 of the declaration, page 383 of Exhibit 1</p> <p>24 PDF.</p> <p>25 A. Right.</p>

<p style="text-align: right;">Page 86</p> <p>1 Q. In the middle of paragraph 15, there's a</p> <p>2 sentence that starts "as explained above." Do you see</p> <p>3 that?</p> <p>4 A. Yes.</p> <p>5 Q. And he describes that, "A fluctuation in</p> <p>6 reported potency data is to be expected due to the</p> <p>7 inherent variability and relative accuracy of the</p> <p>8 potency assay."</p> <p>9 A. Yes.</p> <p>10 Q. Do you agree with him, that fluctuation is to</p> <p>11 be expected due to the inherent variability and relative</p> <p>12 accuracy of the potency assay?</p> <p>13 A. I do agree with him.</p> <p>14 Q. Okay. And let's see here. And then paragraph</p> <p>15 17, which is page 8 of his declaration, page 385 of the</p> <p>16 Exhibit 1 PDF.</p> <p>17 A. Right.</p> <p>18 Q. I guess as an initial question, you reviewed</p> <p>19 the attachments to his declaration as well as his</p> <p>20 declaration, right?</p> <p>21 A. You're referring to attachments to the Swaan?</p> <p>22 Q. Yes, exactly. You're referring -- you've read</p> <p>23 the attachments to the Swaan declaration as well as the</p> <p>24 --</p> <p>25 A. Yes, I've -- I've looked at those references.</p>	<p style="text-align: right;">Page 88</p> <p>1 use the phrase "with knowledge and experience acquired</p> <p>2 during the course of his or her education." Do you see</p> <p>3 that?</p> <p>4 A. Yes, I do.</p> <p>5 Q. And when you use that phrase, is that, again,</p> <p>6 just referring to paragraphs 42, 43 and 44 of your</p> <p>7 report?</p> <p>8 A. Just a moment. That's correct.</p> <p>9 Q. Okay. And then when you use the same phrase</p> <p>10 -- well, actually to say, back on 71, you see that you</p> <p>11 used the same phrase, "with knowledge and experience</p> <p>12 acquired during the course of his or her education," in</p> <p>13 bullet points 2 and 3 under paragraph 71?</p> <p>14 A. Yes.</p> <p>15 Q. And did the phrase have any different meaning</p> <p>16 in those bullet points than it did in the first bullet</p> <p>17 point of paragraph 71?</p> <p>18 A. Would be the same.</p> <p>19 Q. Okay. You see you use the title Compounding</p> <p>20 Pharmacist in paragraph 71.</p> <p>21 A. Yes.</p> <p>22 Q. Do you consider yourself to be a compounding</p> <p>23 pharmacist?</p> <p>24 A. Since I'm involved in formulating</p> <p>25 preparations --</p>
<p style="text-align: right;">Page 87</p> <p>1 Q. Okay. And after reviewing those references,</p> <p>2 did you agree with his statement at the -- on number 3</p> <p>3 at the end of 17 that the quality assurance testing in</p> <p>4 those attachments was within potency specifications for</p> <p>5 lethal injection up until their one-year expiration</p> <p>6 date?</p> <p>7 MR. STRONSKI: Objection to form.</p> <p>8 A. Well, he did insert the phrase "for lethal</p> <p>9 injection."</p> <p>10 Q. (By Mr. Cleveland) Okay.</p> <p>11 A. And my only concern is that the potency</p> <p>12 specifications for pentobarbital solution for injection</p> <p>13 don't stipulate for lethal injection.</p> <p>14 Q. Okay. And if you know, what would the</p> <p>15 differences be between specifications for solution and</p> <p>16 for a lethal injection?</p> <p>17 A. Well, I would not expect a difference, but</p> <p>18 it's a phrase that is a qualification, and I can't say</p> <p>19 for certain whether that would be appropriate or not.</p> <p>20 Q. Okay.</p> <p>21 A. I'd have to look at that more closely.</p> <p>22 Q. Understood. Now, turning back to your report,</p> <p>23 I'm going to go to the very end to paragraph 71.</p> <p>24 A. Yes.</p> <p>25 Q. I see, you know, in the first paragraph, you</p>	<p style="text-align: right;">Page 89</p> <p>1 Q. Uh-huh.</p> <p>2 A. -- with or without an active ingredient --</p> <p>3 Q. Uh-huh.</p> <p>4 A. -- in the process of making formulations, I</p> <p>5 am, in effect, compounding, so I'm a compounding</p> <p>6 pharmacist.</p> <p>7 Q. Okay. And do I recall correctly that you're</p> <p>8 no longer licensed by any state?</p> <p>9 A. That's correct.</p> <p>10 Q. Okay. If you were still licensed by a state</p> <p>11 as a pharmacist, would you say that you otherwise have</p> <p>12 the knowledge and experience acquired during the course</p> <p>13 of your education to perform the compounding you</p> <p>14 describe in your report?</p> <p>15 MR. STRONSKI: Objection to form. Beyond the</p> <p>16 scope.</p> <p>17 A. Yes, I would say so.</p> <p>18 Q. (By Mr. Cleveland) Okay. And so if you were</p> <p>19 given the necessary amount of pentobarbital, would you</p> <p>20 be able to perform the compounding of pentobarbital that</p> <p>21 you describe in your report?</p> <p>22 MR. STRONSKI: The question is would he be</p> <p>23 able?</p> <p>24 MR. CLEVELAND: Yes. The question is, if he</p> <p>25 were given the necessary amount of pentobarbital, would</p>

<p>Page 90</p> <p>1 he be able to perform the compounding he describes in</p> <p>2 his report?</p> <p>3 A. With the appropriate facilities and equipment</p> <p>4 and environment, I could.</p> <p>5 Q. (By Mr. Cleveland) Okay. And the same</p> <p>6 question with sodium pentothal. If you were given the</p> <p>7 necessary amount of sodium pentothal, would you be able</p> <p>8 to perform the compounding that you describe in your</p> <p>9 report?</p> <p>10 A. I could.</p> <p>11 Q. And would you be willing, given the necessary</p> <p>12 amount of pentobarbital, to compound it as you describe</p> <p>13 in your report for use by defendants?</p> <p>14 MR. STRONSKI: Objection. Beyond the scope.</p> <p>15 Objection, to the extent you're asking him to identify</p> <p>16 himself as a potential source of lethal chemicals under</p> <p>17 this protocol, we would instruct him not to answer.</p> <p>18 MR. CLEVELAND: Okay. And I'm -- I'm going to</p> <p>19 make the record of the other questions there too, but</p> <p>20 understanding obviously a lot of disagreement on</p> <p>21 objections.</p> <p>22 Q. (By Mr. Cleveland) So if you were given the</p> <p>23 necessary amount of sodium pentothal, would you be</p> <p>24 willing to perform the compounding that you describe in</p> <p>25 your report for defendants?</p>	<p>Page 92</p> <p>1 instruction not to answer the three questions?</p> <p>2 A. Correct.</p> <p>3 Q. All right. Other than Dr. Sherman's report,</p> <p>4 have you reviewed any other witness statements in this</p> <p>5 case?</p> <p>6 MR. STRONSKI: Objection to form. Lack of</p> <p>7 foundation.</p> <p>8 A. I reviewed Dr. Swaan's report and</p> <p>9 Dr. Sherman's. I don't recall any other witness reports</p> <p>10 that were shown to me or that I examined.</p> <p>11 Q. (By Mr. Cleveland) Okay. And were you asked</p> <p>12 by -- or no, let me rephrase this.</p> <p>13 Would I be correct in concluding that you're</p> <p>14 not offering any opinions on midazolam in your report?</p> <p>15 MR. STRONSKI: Object to form. Outside the</p> <p>16 scope.</p> <p>17 A. Yes, I was not asked to provide an opinion on</p> <p>18 midazolam.</p> <p>19 Q. (By Mr. Cleveland) Okay. And have any of the</p> <p>20 opinions in your report changed between the date of your</p> <p>21 report and now?</p> <p>22 A. They have not.</p> <p>23 Q. All right.</p> <p>24 MR. CLEVELAND: And then subject to my request</p> <p>25 for that Chapter 1 in the monographs, I think I'm</p>
<p>Page 91</p> <p>1 MR. STRONSKI: Objection to form. Objection,</p> <p>2 to the extent it would tend to identify Dr. Block as the</p> <p>3 source of lethal chemicals under the protocol. We would</p> <p>4 instruct him at this time not to answer.</p> <p>5 Q. (By Mr. Cleveland) Okay. I don't think I</p> <p>6 have --</p> <p>7 A. I could perform the compounding operations</p> <p>8 involved in the preparation of those solutions.</p> <p>9 Q. And I don't think I asked Heparin saline.</p> <p>10 Just to confirm, given access to necessary concentration</p> <p>11 and amount of Heparin saline, would you be capable of</p> <p>12 performing the compounding you described?</p> <p>13 A. Yes.</p> <p>14 Q. All right. And then just making the record</p> <p>15 for the other one. If you were given the access to the</p> <p>16 necessary concentration amount of Heparin saline, would</p> <p>17 you be willing to perform the compounding of those</p> <p>18 solutions for defendants?</p> <p>19 MR. STRONSKI: Same -- same objection and same</p> <p>20 instruction not to answer based on the Secrecy Statute</p> <p>21 and -- and the fact this would tend to disclose in</p> <p>22 discovery Dr. Block as a source of lethal chemicals</p> <p>23 under the protocol.</p> <p>24 Q. (By Mr. Cleveland) Okay. And I assume,</p> <p>25 Doctor, that you're going to follow your counsel's</p>	<p>Page 93</p> <p>1 otherwise concluded.</p> <p>2 MR. STRONSKI: I have no questions. Thank</p> <p>3 you, Dr. Block.</p> <p>4 THE WITNESS: Thank you.</p> <p>5 MR. CLEVELAND: Thank you, Doctor. Appreciate</p> <p>6 your time.</p> <p>7 THE VIDEOGRAPHER: This concludes the</p> <p>8 videotaped deposition of Dr. Lawrence Block. We're off</p> <p>9 the record at 12:31 p.m.</p> <p>10 (Deposition concluded at 12:31 p.m.)</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

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25 (94 - 96)

<p>Page 94</p> <p>1 JURAT</p> <p>2 GLOSSIP VS. CHANDLER</p> <p>3 JOB FILE NO. 149323</p> <p>4 STATE OF OKLAHOMA</p> <p>5 SS</p> <p>6 COUNTY OF TULSA</p> <p>7 I, LAWRENCE H. BLOCK, PhD, do hereby state</p> <p>8 under oath that I have read the above and foregoing</p> <p>9 deposition in its entirety and that the same is a full,</p> <p>10 true and correct transcription of my testimony so given</p> <p>11 at said time and place, except for the corrections</p> <p>12 noted.</p> <p>13</p> <p>14 _____</p> <p>15 Signature of Witness</p> <p>16</p> <p>17 Subscribed and sworn to before me, the</p> <p>18 undersigned Notary Public in and for the State of</p> <p>19 Oklahoma by said witness, LAWRENCE H. BLOCK, PhD, on</p> <p>20 this _____ day of _____, 2021.</p> <p>21</p> <p>22</p> <p>23 _____</p> <p>24 NOTARY PUBLIC</p> <p>25 MY COMMISSION EXPIRES: _____</p>	<p>Page 96</p> <p>1 CERTIFICATE</p> <p>2</p> <p>3 STATE OF OKLAHOMA)</p> <p>4)</p> <p>5 COUNTY OF TULSA)</p> <p>6</p> <p>7 I, Shannon S. Harwood, a Certified Shorthand</p> <p>8 Reporter in and for the State of Oklahoma, do hereby</p> <p>9 certify that the foregoing is a true and correct</p> <p>10 transcription of my shorthand notes of proceedings had</p> <p>11 in Case Number CIV-14-665-F heard on the 12th day of</p> <p>12 February, 2021, and is only valid with my stamped seal</p> <p>13 and my original signature.</p> <p>14</p> <p>15 I further certify that I am not related to nor</p> <p>16 attorney for either of said parties nor otherwise</p> <p>17 interested in said action.</p> <p>18</p> <p>19 IN WITNESS WHEREOF, I have hereunto set my hand and</p> <p>20 seal this 18th day of February, 2021.</p> <p>21 </p> <p>22 _____</p> <p>23</p> <p>24 Shannon S. Harwood, CSR, RPR, CRR</p> <p>25</p>
<p>Page 95</p> <p>1 ERRATA SHEET</p> <p>2 GLOSSIP VS. CHANDLER</p> <p>3 DEPOSITION OF LAWRENCE H. BOCK, PhD</p> <p>4 REPORTED BY: SHANNON S. HARWOOD, CSR, RPR, CRR</p> <p>5 DATE OF DEPOSITION TAKEN: FEBRUARY 12, 2021</p> <p>6 JOB FILE NO. 149323</p> <p>7 PAGE LINE IS SHOULD BE</p> <p>8 _____</p> <p>9 _____</p> <p>10 _____</p> <p>11 _____</p> <p>12 _____</p> <p>13 _____</p> <p>14 _____</p> <p>15 _____</p> <p>16 _____</p> <p>17 _____</p> <p>18 _____</p> <p>19 _____</p> <p>20 _____</p> <p>21 _____</p> <p>22 _____</p> <p>23 _____</p> <p>24 _____</p> <p>25 _____</p>	